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Part 2. Water Quality Records

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Water resources data for the 1973 water year for Wisconsin consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs. This report contains discharge records for 112 gaging stations; stage and contents for 41 lakes and reservoirs; water quality for 8 gaging stations. Also included are 93 low-flow and 134 crest-stage partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements and analyses. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating local, State, and Federal agencies in Wisconsin.

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1973

# Water Resources Data for Wisconsin Water Year 1973

## Part 1. Surface Water Records

## Part 2. Water Quality Records

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UNITED STATES
DEPARTMENT OF THE INTERIOR

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WI-73-1

Prepared in cooperation with the State of Wisconsin
and with other agencies

# CALENDAR FOR WATER YEAR 1973

## 1972

### OCTOBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
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### NOVEMBER

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### DECEMBER

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| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | | | | | | |

## 1973

### JANUARY

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### FEBRUARY

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| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | | | |

### MARCH

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### APRIL

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### MAY

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### JUNE

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### JULY

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### AUGUST

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| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
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### SEPTEMBER

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| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | | | | | | |

# 1973

# Water Resources Data for Wisconsin Water Year 1973

## Part 1. Surface Water Records

## Part 2. Water Quality Records

UNITED STATES
DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WI-73-1

Prepared in cooperation with the State of Wisconsin
and with other agencies

Prepared in cooperation with

Wisconsin Department of Natural Resources
Wisconsin Department of Transportation
The University of Wisconsin-Extension
Geological and Natural History Survey
Southeastern Wisconsin Regional Planning Commission
City of Madison

Copies of this report may be obtained from
District Chief, Water Resources Division
U. S. Geological Survey
1815 University Avenue
Madison, Wisconsin 53706

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WATER-QUALITY STATIONS, IN DOWNSTREAM ORDER,
FOR WHICH RECORDS ARE PUBLISHED

(Letters after station name designate type of data: (c), chemical; (t), water temperature; (s), sediment)

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# WATER RESOURCES DATA FOR WISCONSIN, 1973

Part 1. Surface-Water Records
Part 2. Water-Quality Records

## INTRODUCTION

Water resources data for the 1973 water year for Wisconsin including records of streamflow, lake stage, or reservoir storage at gaging stations, partial-record stations, and miscellaneous sites, and records of water-quality data on the chemical and physical characteristics of surface water, are given in this report. In Part 1, records are included for 142 gaging stations of which 101 are streamflow discharge stations, and 41 are reservoir or lake stations; also are included records for 93 low-flow partial-record stations, 134 crest-stage partial-record stations, and 72 low-flow investigation sites. Location of 101 long-term streamflow gaging stations and 12 lake stations are shown in figure 1. In Part 2, data on the quality of surface water (chemical, temperature, and sediment) were collected from designated sampling sites at predetermined intervals such as once daily, weekly, monthly, or less frequently, and at some sites data were recorded continuously on strip charts or on punched paper tape at 60-minute intervals. Records are given for 121 sampling stations of which 8 are continuous record stations, 106 are partial-record stations, and 7 are miscellaneous sites. Locations of water-quality stations are shown in figure 6. A few pertinent stations (not included above) in bordering States are also included in this report. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of C. L. R. Holt, Jr., district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Wisconsin.

Beginning with the 1961 water year, streamflow records and related data have been released by the Geological Survey in annual reports on a State-boundary basis. Beginning with the 1955 water year, water-quality records have been released with streamflow records or in a separate part. Distribution of these reports is limited; they are designed primarily for rapid release of data shortly after the end of the water year.

Records of discharge and stage of streams, and contents and stage of lakes and reservoirs are published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and since then are in a 5-year series. Records of chemical quality, water temperatures, and suspended sediment have been published since 1941 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." More information is given under the headings "Publications" on pages 15 and 20.

## COOPERATION

The U.S. Geological Survey and organizations of the State of Wisconsin have had cooperative agreements for the systematic collection of streamflow records since 1913, and for water-quality records collected at surface-water sites since 1955.

Organizations that assisted in collecting data through cooperative agreements with the Survey are:

Wisconsin Department of Natural Resources, L. P. Voigt, secretary.

Wisconsin Department of Transportation, N. M. Clapp, secretary, and W. A. Kline, chief bridge engineer.

The University of Wisconsin-Extension, Geological and Natural History Survey, M. E. Ostrom, state geologist and director.

Southeastern Wisconsin Regional Planning Commission, K. W. Bauer, executive director.

City of Madison, D. E. Theobald, succeeded by A. E. Milke, city engineer.

Assistance in the form of funds or services was given by:

Department of the Army, Corps of Engineers

| | |
|---|---|
| St. Paul District | 11 gaging stations |
| Rock Island District | 7 gaging stations |
| Chicago District | 4 gaging stations |

United States Environmental Protection Agency - 2 water-quality stations.

Department of the Army, Corps of Engineers, St. Paul District - 3 water-quality stations.

The following organizations aided in collecting records:

Wisconsin Valley Improvement Co.
Lake Superior District Power Co.
Wisconsin-Michigan Power Co.
Wisconsin Public Service Corp.
Northern States Power Co.
Dairyland Power Cooperative
Wisconsin Power and Light Co.
Nekoosa-Edwards Paper Co.
Wisconsin River Power Co.
Milwaukee County Park Commission
Milwaukee Water Works, Linwood Avenue Plant

Organizations that supplied data are acknowledged in station descriptions.

## DEFINITION OF TERMS

Terms related to streamflow, water-quality and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System of units (SI) on page

Acre-foot (AC-FT, Acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons.

Bed material is the shifting portion of fragmented material in the streambed.

Biochemical oxygen demand (BOD) is the amount of oxygen required by bacteria while stabilizing decomposable organic matter under aerobic conditions.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons, and represents a runoff of approximately 0.0372 inch from 1 square mile.

Chemical oxygen demand (COD) indicates the quantity of oxidizable compounds in water and varies with water composition, temperature, period of contact, and other factors.

Coliform organisms are a group of bacteria that indicate the sanitary quality of water. The number of coliform colonies per 100 milliliters is determined by the immediate or delayed incubation membrane filter method.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from a gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute.

Discharge is the volume of fluid that passes a given point within a given period of time.

Mean discharge is the arithmetic average of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time. Where this discharge is used in tables instead of the daily mean, the column heading is "Discharge (cfs)".

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Drainage-area figures include the entire basin area including noncontributing areas unless otherwise noted.

Gage height (G.H.) is the water-surface height referred to an arbitrary datum. Gage height often is used interchangeably with "stage", although gage height is more appropriate when used as a gage reading.

Gaging station is a site on a stream, canal, lake or reservoir where systematic observations of gage height or discharge are obtained. When used with a discharge record, the term applies only to gaging stations having a continuous discharge record. Water-quality recorded data and samples for analyses

usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment loads.

Hardness of water is a physical-chemical characteristic attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Methylene blue active substance (MBAS) is a measure of detergents in water. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per liter (ug/l, UG/L) is a unit expressing the concentration of chemical constituents in solution as the weight (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (mg/l, MG/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the weight of solute per unit volume of water. Milligrams or micrograms per liter may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per liter by miltiplying by the factors in table 1, page 6. Concentration of suspended sediment also is expressed in mg/l, and is based on the weight of sediment per liter of water-sediment mixutre. Sediment concentrations may be converted to parts per million by using the factors in table 2, page 6.

Partial-record station is a site where limited streamflow or water-quality data are collected systematically over a period of years.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the stream water at the time and point of sampling) (Guy, 1969).

Table 1.--Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter

| Ion | Multiply by | Ion | Multiply by |
|---|---|---|---|
| Aluminum ($Al^{+3}$)*... | 0.11119 | Iodide ($I^{-1}$)..... | 0.00788 |
| Ammonia as $NH_4^{+1}$... | .05544 | Iron ($Fe^{+3}$)*..... | .05372 |
| Barium ($Ba^{+2}$)..... | .01456 | Lead ($Pb^{+2}$)*..... | .00965 |
| Bicarbonate ($HCO_3^{-1}$) | .01639 | Lithium ($Li^{+1}$)*.... | .14411 |
| Bromide ($Br^{-1}$)..... | .01251 | Magnesium ($Mg^{+2}$)... | .08226 |
| Calcium ($Ca^{+2}$)..... | .04990 | Manganese ($Mn^{+2}$)*.. | .03640 |
| Carbonate ($CO_3^{-2}$).. | .03333 | Nickel ($Ni^{+2}$)*..... | .03406 |
| Chloride ($Cl^{-1}$).... | .02821 | Nitrate ($NO_3^{-1}$).... | .01613 |
| Chromium ($Cr^{+6}$)*... | .11539 | Nitrite ($NO_2^{-1}$).... | .02174 |
| Cobalt ($Co^{+2}$)*..... | .03394 | Phosphate ($PO_4^{-3}$).. | .03159 |
| Copper ($Cu^{+2}$)*..... | .03148 | Potassium ($K^{+1}$).... | .02557 |
| Cyanide ($CN^{-1}$)..... | .03844 | Sodium ($Na^{+1}$)..... | .04350 |
| Fluoride ($F^{-1}$)..... | .05264 | Strontium ($Sr^{+2}$)*.. | .02283 |
| Hydrogen ($H^{+1}$)..... | .99209 | Sulfate ($SO_4^{-2}$).... | .02082 |
| Hydroxide ($OH^{-1}$)... | .05880 | Zinc ($Zn^{+2}$)*..... | .03060 |

*Constituent reported in micrograms per liter; multiply by factor and divide results by 1,000.

Table 2.--Factors for conversion of sediment concentration in milligrams per liter to parts per million*
(All values calculated to three significant figures)

| Range of concentration in 1000 mg/l | Divide by | Range of concentration in 1000 mg/l | Divide by | Range of concentration in 1000 mg/l | Divide by | Range of concentration in 1000 mg/l | Divide by |
|---|---|---|---|---|---|---|---|
| 0 - 8 | 1.00 | 201-217 | 1.13 | 411-424 | 1.26 | 619-634 | 1.39 |
| 8.05- 24 | 1.01 | 218-232 | 1.14 | 427-440 | 1.27 | 636-650 | 1.40 |
| 24.2 - 40 | 1.02 | 234-248 | 1.15 | 443-457 | 1.28 | 652-666 | 1.41 |
| 40.5 - 56 | 1.03 | 250-264 | 1.16 | 460-473 | 1.29 | 668-682 | 1.42 |
| 56.5 - 72 | 1.04 | 266-280 | 1.17 | 476-489 | 1.30 | 684-698 | 1.43 |
| 72.5 - 88 | 1.05 | 282-297 | 1.18 | 492-506 | 1.31 | 700-715 | 1.44 |
| 88.5 -104 | 1.06 | 299-313 | 1.19 | 508-522 | 1.32 | 717-730 | 1.45 |
| 105 -120 | 1.07 | 315-329 | 1.20 | 524-538 | 1.33 | 732-747 | 1.46 |
| 121 -136 | 1.08 | 331-345 | 1.21 | 540-554 | 1.34 | 749-762 | 1.47 |
| 137 -152 | 1.09 | 347-361 | 1.22 | 556-570 | 1.35 | 765-780 | 1.48 |
| 153 -169 | 1.10 | 363-378 | 1.23 | 572-585 | 1.36 | 782-796 | 1.49 |
| 170 -185 | 1.11 | 380-393 | 1.24 | 587-602 | 1.37 | 798-810 | 1.50 |
| 186 -200 | 1.12 | 395-409 | 1.25 | 604-617 | 1.38 | | |

*Based on water density of 1.000 g/ml (grams per milliliter) and a specific gravity of sediment of 2.65.

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology (Lane and others, 1947). The classification is as follows:

| Classification | Size (mm) | Method of analysis |
|---|---|---|
| Clay..... | 0.00024 - 0.004 | Sedimentation. |
| Silt..... | .004 - .062 | Sedimentation. |
| Sand..... | .062 - 2.0 | Sedimentation or sieve. |
| Gravel..... | 2.0 - 64.0 | Sieve. |

The particle-size distribution given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis (Guy, 1969).

Picocurie (PC) is a unit for measuring radioactivity equal to $1 \times 10^{-12}$ Curie. One Curie is equal to that quantity of any radioactive isotope undergoing $3.7 \times 10^{10}$ disintegrations per second.

Plankton is the floating (or weakly swimming) animal or plant life in a body of water consisting chiefly of minute plants (as diatoms and blue-green algae) and of minute animals (as protozoan, entomostracans, and various larvae).

Runoff in inches (IN.) shows the depth to which the drainage area would be covered if all runoff for a given time period were uniformly distributed.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of sediment in streams are influenced by environmental factors. Some major factors are geology, topography, soil characteristics, land use, and the quantity and intensity of precipitation.

Suspended sediment is the sediment that is maintained in suspension by the upward components of turbulent currents or that is suspended as a colloid.

Suspended-sediment discharge is the rate at which a dry weight of sediment passes a stream section, or it is the dry weight or volume discharged during a time period. It is the product of the instantaneous stream discharge, the concentration (mg/l), and 0.0027.

Suspended-sediment concentration is the velocity-weighted amount of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/l).

Sodium adsorption ratio (SAR) expresses the relative activity of sodium ions in exchange reactions with soil and is an index of the sodium or alkali hazard to the soil. This ratio is used to determine the suitability of water for irrigation.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of water to conduct electric current and is expressed in micromhos per centimeter at 25°C. Because specific conductance is related to the number and types of ions in solution, it can be used to approximate the dissolved-solids content in water. Commonly the amount of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation differs from stream to stream and from well to well; it may even differ with the composition of ions in the water.

Stage-discharge relation is the relation between gage height and the volume of water (per unit of time) flowing in a channel.

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate a thermograph or digital mechanism that automatically records water temperatures on paper tape.

Tons per acre-foot indicates the dry weight of dissolved solids in 1 acre-foot of water. It is the product of the sediment concentration (in mg/l) and 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during 24 hours.

WRD is an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph that refers to published State annual basic-data reports.

WSP is an abbreviation for "Water-Supply Paper".

## SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin. Index stations are located to provide current streamflow data that are representative of the area. Water-quality stations are part of a network that depicts the area variability of water-quality conditions and detects and assesses long-term changes in stream quality.

## DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the lists of gaging stations and water-quality stations in the front of this report the rank of tributaries is indicated by indention, each indention representing one rank.

For identification, each gaging station, partial-record station, and water-quality station has been assigned a station number. These numbers are in the same downstream order mentioned above. In assigning station numbers no distinction is made between partial-record stations and gaging stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station. Gaps are left in the series of numbers so that new stations may be established. The complete 8-digit number for each station, such as 05407000 appears just left of the station name and includes the 2-digit part number "05" plus the 6-digit downstream order number "407000". In this report the records are listed in downstream order by parts. The part number refers to an area bounded by certain natural major drainage lines. Records in this report are in Part 4 (St. Lawrence River basin) and Part 5 (Upper Mississippi River basin). All records for a drainage basin encompassing more than one State can be arranged in downstream order by assembling pages from the various State reports by station number.

## EXPLANATION OF SURFACE WATER RECORDS

### Collection and computation of data

The basic data collected at gaging stations consist of records of stage and measurements of discharge of streams and stage, surface area, and contents of lakes and reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at 5-, 15-, 30-, or 60-minute intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

Rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharges greater than those measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, and the monthly and yearly mean discharges are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in computing discharge. The slope or fall is obtained by means of an auxiliary gage separated from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

At some stream-gaging stations the stage-discharge relation is affected by ice and it is impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, considering available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For some gaging stations there are periods without gage-height record or the recorded gage height is faulty. This happens when the recorder stops or fails to operate properly, intakes are plugged, the float is frozen in the well, or for other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with station records from the same or nearby basins.

Data in this report include a general description of the stations and tabulations of daily and monthly figures. A table showing the daily discharge and monthly and yearly discharges is given for gaging stations on streams or canals. A monthly summary table of stage and contents or a table showing the daily contents is given for gaging stations on lakes and reservoirs. Records are published for the water year, which begins October 1 and ends September 30. A calendar for the current water year is shown on the reverse side of the front cover to facilitate finding the day of the week for any date.

The description of the gaging stations gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, general remarks, and notations of revisions of previously published records. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD." The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified. The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE;" it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or minimum contents) and the minimum gage height if it is significant are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). In the first paragraph headed "Current year," the data given are for the complete current water year unless otherwise specified. In the second paragraph under "EXTREMES" headed "Period of record:" the data given are for the period of record given in PERIOD OF RECORD paragraph. Reliable information concerning major floods that occurred outside the period of record is given in the third or last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge (or contents) corresponds to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge (or contents), it is given separately. Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of Water Quality records, is given under "REMARKS."

Published records of some stations were found to be erroneous, based on data obtained later. Revisions of erroneous records usually are published with the current records in one of the annual or compilation reports. A paragraph headed "REVISIONS (WATER YEARS)" has been added to the description of all stations having published revised records. All reports in which revisions have been published are listed, each followed by the water years for which figures are revised in that report. In listing the water years, only one year is given; for instance, 1965 stands for the period October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge were revised, notations after the dates indicate the following revisions: "(M)" only instantaneous maximum discharge; "(m)" only the instantaneous minimum; and "(P)" only peak discharges. If the drainage area has been revised, the water year is given in which the revised figure was first published. For all stations with published cubic feet per second per square mile and runoff in inches, a revision of the drainage area necessitates revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches, resulting from revised drainage area only, usually are not published in the annual report series.

Skeleton rating tables are published for stream-gaging stations where they are useful and where applicable dates are easily identified.

The daily table for a stream-gaging station gives the discharge corresponding to the daily mean gage height unless large or rapid changes occur in the discharge during a day. For days having large or rapid changes, discharge for the day is computed by averaging the mean discharge for several parts of a day. Where digital recorders are used, the daily mean discharge is the average discharge at each punched reading. For stations equipped with nonrecording gages, the daily discharge corresponds to once-daily readings of the gage or to the mean of twice-daily readings; for periods of rapidly changing stage the discharge is determined from a gage-height graph based on gage readings.

A monthly summary is below the daily table. For stream-gaging stations the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM") and in inches (line headed "IN."). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, or if the drainage area includes large noncontributing areas.

In the yearly summary, below the monthly summary, the figures following "MAX" are the maximum daily discharges for the calendar and water years; likewise, those following "MIN" are the minimum daily discharges.

Footnotes to the daily-discharge table are introduced by the word "NOTE". Footnotes indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater, indefinite stage-discharge relation, or other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used to compute discharge for several unusual conditions have been explained.

Peak discharges, their times of occurrence, and the corresponding gage heights for many stations are listed below the yearly summary. All peaks above the selected base are listed. The base discharge, in parentheses, is selected to present about three peaks a year. Peak discharges are not published for canals, ditches, drains, or streams substantially controlled by man. Time of day is expressed in 24-hour local standard time; for example 12:30 a.m. is 0030, and 1:30 p.m. is 1330.

Information for gaging stations on lakes includes a station description and a monthly summary table of stage. Information for reservoir stations includes a description and location paragraph and month-end contents, in millions of cubic feet.

Data collected at partial-record stations and miscellaneous sites are listed in three tables at the end of the surface-water records. The first table is discharge measurements at low-flow partial-record stations, the second is annual maximum stage and discharge at crest-stage stations, and the third table lists measured discharges for low-flow investigations.

## Accuracy of Data

The accuracy of discharge data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges is within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge are to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based on the magnitude of the figure. The same rounding rules apply to discharge figures for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to diversion, consumption, storage regulation, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents unless it is so stated. Even where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

## Publications

Each Water-Supply Paper titled "Surface Water Supply of the United States" has a list of previous Water-Supply Papers containing streamflow information for the area covered by that report. There is also a list of Water-Supply Papers containing detailed information on major floods in the area. Records for stations in Wisconsin for the period October 1960 through September 1965 are in Water-Supply Papers 1911, 1914, and 1915.

Two series of summary reports titled "Compilation of Records of Surface Waters of the United States" have been published; the first series covers the entire period of record through September 1950 and the second series covers the period October 1950 through September 1960. These reports contain summaries of monthly and annual discharge and monthend storage for all published records, as well as some records not contained in the annual series of Water-Supply Papers. All records were revised where warranted. Estimated discharges fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the Water-Supply Papers in which daily records were published for that station. Records for stations in Wisconsin are compiled in Water-Supply Papers 1307 and 1308 through September 1950, and in 1727 and 1728 for October 1950 through September 1960.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than Water-Supply Papers. Information relative to these reports may be obtained from the district office.

### Other data available

More detailed information than that published for most gaging stations, such as discharge measurements, gage-height records, and rating tables, is on file in the district office. Also most gaging-station records are available in computer-usable form, and many statistical analyses have been made.

## EXPLANATION OF WATER QUALITY RECORDS

### Collection and examination of data

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used with the computations of the chemical constituents and sediment loads in this report.

Description of water-quality stations located at or near streamflow stations include location, drainage area, periods of record for the various water-quality data, extremes of pertinent data, and general remarks. The format is similar to that used for streamflow gaging stations.

Water-quality information includes chemical quality, biological, microbiological, water temperature, and fluvial sediment. Chemical quality includes concentrations of dissolved constituents and certain properties or characteristics such as hardness, sodium adsorption ratio, specific conductance, and pH. The biological information includes qualitative and quantitative analyses of plankton, bottom organisms, and particulate inorganic and amorphous matter. Microbiological information includes quantitative identification of certain bacteriological indicator organisms. Water-temperature data represent once-daily observations except for stations with a continuous temperature recorder from which daily minimums and maximums are obtained. Fluvial-sediment information is given for suspended-sediment discharges and concentrations, and particle-size distribution of suspended sediment and bed material.

Before the 1968 water year, data for chemical constituents and concentration of suspended sediment were reported in parts per million (ppm), and water temperatures were reported in degrees Fahrenheit (°F). In October 1967 the U.S. Geological Survey began to use the metric system; data for chemical constituents and concentrations of suspended sediment are now reported in milligrams per liter (mg/l), and water temperatures are given in degrees Celsius (centigrade, °C). In waters with a density of 1.000 g/ml (grams per millititer), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per liter. Temperatures in degrees Celsius are converted to Fahrenheit in table 3, page 18.

In October 1968, the Geological Survey began reporting many chemical constituents and minor elements in micrograms per liter. (See "Definition of Terms," p. 3 and table for converting English units to SI units, p.23).

Table 3.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

| °C | °F | °C | °F | °C | °F | °C | °F | °C | °F |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 32 | 10.0 | 50 | 20.0 | 68 | 30.0 | 86 | 40.0 | 104 |
| .5 | 33 | 10.5 | 51 | 20.5 | 69 | 30.5 | 87 | 40.5 | 105 |
| 1.0 | 34 | 11.0 | 52 | 21.0 | 70 | 31.0 | 88 | 41.0 | 106 |
| 1.5 | 35 | 11.5 | 53 | 21.5 | 71 | 31.5 | 89 | 41.5 | 107 |
| 2.0 | 36 | 12.0 | 54 | 22.0 | 72 | 32.0 | 90 | 42.0 | 108 |
| 2.5 | 36 | 12.5 | 54 | 22.5 | 72 | 32.5 | 90 | 42.5 | 108 |
| 3.0 | 37 | 13.0 | 55 | 23.0 | 73 | 33.0 | 91 | 43.0 | 109 |
| 3.5 | 38 | 13.5 | 56 | 23.5 | 74 | 33.5 | 92 | 43.5 | 110 |
| 4.0 | 39 | 14.0 | 57 | 24.0 | 75 | 34.0 | 93 | 44.0 | 111 |
| 4.5 | 40 | 14.5 | 58 | 24.5 | 76 | 34.5 | 94 | 44.5 | 112 |
| 5.0 | 41 | 15.0 | 59 | 25.0 | 77 | 35.0 | 95 | 45.0 | 113 |
| 5.5 | 42 | 15.5 | 60 | 25.5 | 78 | 35.5 | 96 | 45.5 | 114 |
| 6.0 | 43 | 16.0 | 61 | 26.0 | 79 | 36.0 | 97 | 46.0 | 115 |
| 6.5 | 44 | 16.5 | 62 | 26.5 | 80 | 36.5 | 98 | 46.5 | 116 |
| 7.0 | 45 | 17.0 | 63 | 27.0 | 81 | 37.0 | 99 | 47.0 | 117 |
| 7.5 | 45 | 17.5 | 63 | 27.5 | 81 | 37.5 | 99 | 47.5 | 117 |
| 8.0 | 46 | 18.0 | 64 | 28.0 | 82 | 38.0 | 100 | 48.0 | 118 |
| 8.5 | 47 | 18.5 | 65 | 28.5 | 83 | 38.5 | 101 | 48.5 | 119 |
| 9.0 | 48 | 19.0 | 66 | 29.0 | 84 | 39.0 | 102 | 49.0 | 120 |
| 9.5 | 49 | 19.5 | 67 | 29.5 | 85 | 39.5 | 103 | 49.5 | 121 |

*C = 5/9 (°F -32) or °F = 9/5 (°C) + 32.

## Solutes

Methods of collecting and analyzing water samples for determining the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the water. Some streams must be sampled at several verticals across the channel to determine accurately the solute load.

## Temperature

Water temperatures are measured at most water-quality stations. Large streams have a small diurnal temperature change; small, shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

Records at stations having continuously recording thermographs include maximum and minimum daily temperatures and monthly averages.

Water temperature is usually measured at gaging stations when the discharge is measured. Although these temperatures are usually measured monthly an analysis of these data for a long period of record will indicate significant thermal characteristics of the stream.

## Sediment

Suspended-sediment concentrations are determined from samples collected with depth-integrating samplers. Samples usually are obtained at a single vertical in the cross-section. During periods of high or rapidly changing flow, samples are taken twice or more throughout the day at many stations. Suspended-sediment samples are collected periodically at all stations. Although such data may represent conditions only at the time of collection, they are useful in establishing relations between sediment discharge and streamflow. These relations are used to predict long-term sediment-discharge characteristics for the stream.

In addition to the records of the quantities of suspended sediment, records of periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

For days of high flow, sediment discharges may not represent actual sediment transport because a sufficient number of samples were not collected to accurately define mean sediment concentration for the day.

## Publications

The annual series of water-supply papers that contain information on quality of surface waters in Wisconsin are listed below.

Parts 3 and 4

| Water year | WSP No. | Water year | WSP No. | Water year | WSP No. | Water year | WSP No. |
|---|---|---|---|---|---|---|---|
| 1941 | 942 | 1948 | 1132 | 1955 | 1400 | 1962 | 1942 |
| 1942 | 950 | 1949 | 1162 | 1956 | 1450 | 1963 | 1948 |
| 1943 | 970 | 1950 | 1186 | 1957 | 1520 | 1964 | 1955 |
| 1944 | 1022 | 1951 | 1197 | 1958 | 1571 | 1965 | 1962 |
| 1945 | 1030 | 1952 | 1250 | 1959 | 1642 | 1966 | 1992 |
| 1946 | 1050 | 1953 | 1290 | 1960 | 1742 | 1967 | 2012 |
| 1947 | 1102 | 1954 | 1350 | 1961 | 1882 | | |

Parts 5 and 6

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1941 | 942 | 1948 | 1132 | 1955 | 1401 | 1962 | 1943 |
| 1942 | 950 | 1949 | 1162 | 1956 | 1451 | 1963 | 1949 |
| 1943 | 970 | 1950 | 1187 | 1957 | 1521 | 1964 | 1956 |
| 1944 | 1022 | 1951 | 1198 | 1958 | 1572 | 1965 | 1963 |
| 1945 | 1030 | 1952 | 1251 | 1959 | 1643 | 1966 | 1993 |
| 1946 | 1050 | 1953 | 1291 | 1960 | 1743 | 1967 | 2013 |
| 1947 | 1102 | 1954 | 1351 | 1961 | 1883 | 1968 | 2094 |

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_____, 1957, The development and calibration of visual-accumulation tube: Rept. 11.

_____, 1957, Some fundamentals of particle size analysis: Rept. 12.

_____, 1959, Federal Inter-agency sedimentation instruments and reports: Rept. AA.

_____, 1961, The single stage sampler for suspended sediment: Rept. 13.

_____, 1963, Determinations of fluvial sediment discharge: Rept. 14.

U.S. Public Health Service, 1962, Drinking water standards: U.S. Dept. Health, Education, and Welfare, Public Health Service: Pub. No. 956.

Table 4.--Factors for Converting English Units to International System (SI) Units

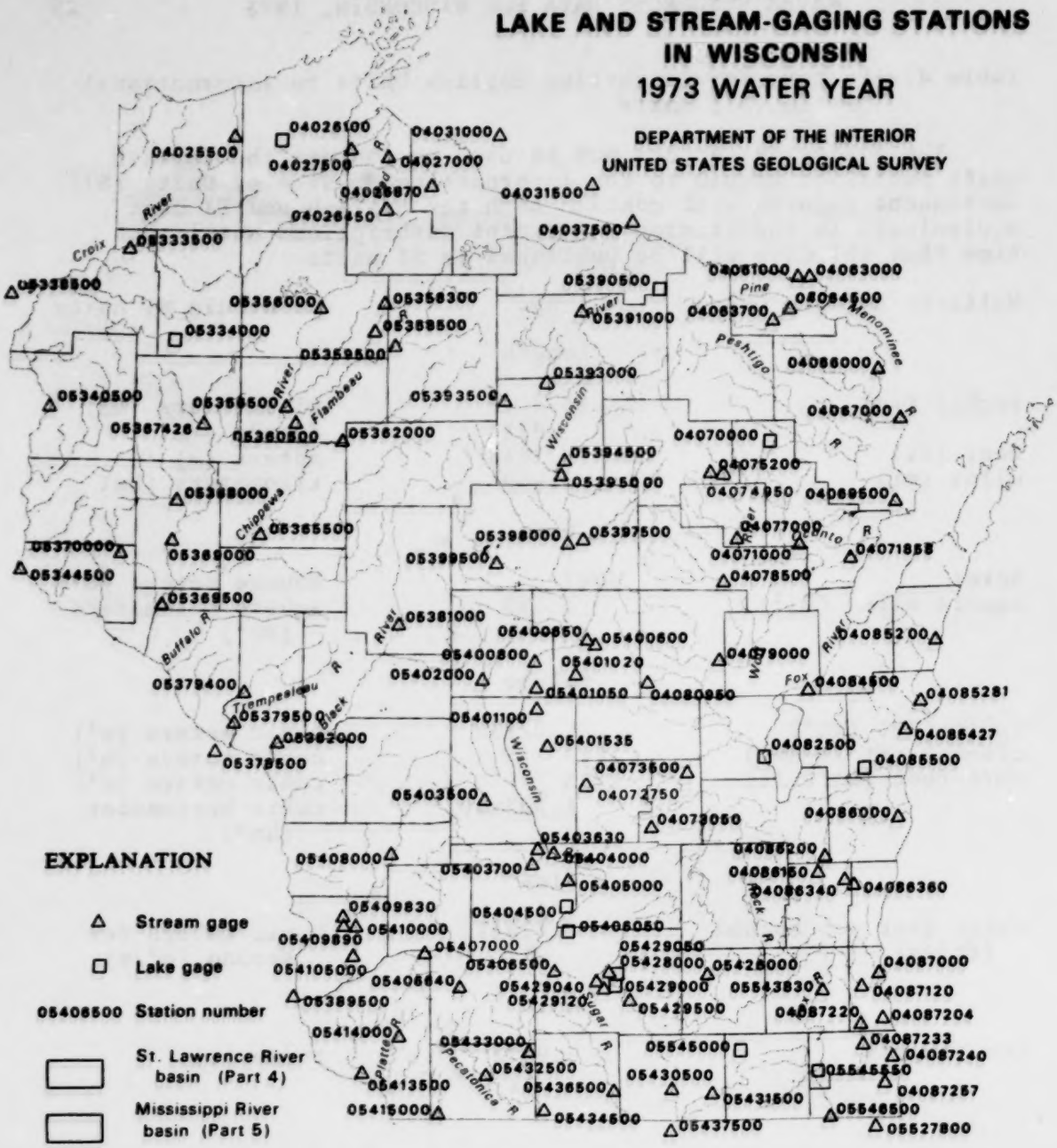
The following factors may be used to convert the English units published herein to the International System of Units (SI). Subsequent reports will contain both the English and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

| Multiply English units | By | To obtain SI units |
|---|---|---|
| | **Length** | |
| inches (in) | 25.4 | millimeters (mm) |
| | .0254 | meters (m) |
| feet (ft) | .3048 | meters (m) |
| miles (mi) | 1.609 | kilometers (km) |
| | **Area** | |
| acres | 4047 | square meters ($m^2$) |
| square miles ($mi^2$) | 2.590 | square kilometers ($km^2$) |
| | **Volume** | |
| cubic feet ($ft^3$) | .02832 | cubic meters ($m^3$) |
| cfs-day ($ft^3$/s-day) | 2447 | cubic meters ($m^3$) |
| acre-feet (acre-ft) | 1233 | cubic meters ($m^3$) |
| | $1.233 \times 10^{-3}$ | cubic hectometers ($hm^3$) |
| | **Flow** | |
| cubic feet per second ($ft^3$/s) | .02832 | cubic meters per second ($m^3$/s) |
| | **Mass** | |
| ton (short) | .9072 | tonne (t) |

FIGURE 1.

# LAKE AND STREAM-GAGING STATIONS IN WISCONSIN 1973 WATER YEAR

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY



# PART 1. SURFACE WATER RECORDS

## HYDROLOGIC CONDITIONS

Annual runoff in Wisconsin for the 1973 water year was well above normal. At many gaging stations the annual mean discharge was the greatest for the period of record. Ground-water levels were well above normal throughout the year, maintaining high base streamflow. In many areas near record high ground-water levels were reached in June. The high base flows and above normal precipitation in fall and spring were major factors causing record yearly discharges. October and November runoff was several times normal at many gaging stations in central Wisconsin. Runoff in January and February was above normal. For the months of March through June, monthly flows averaged two to six times normal at representative gaging stations. Summer flows tended to be near or below normal.

As an example of high spring flows, the discharge of the Black River at Galesville and the Lemonweir River at New Lisbon for March, April and May exceeded the total yearly mean flow. Discharge of Yellow River at Babcock for these three months was double the normal flow for a year and for May was six times the normal May flow.

Spring runoff caused unusually high peak flows at several gaging stations. Peak discharge of Wolf River at New London was 14,100 $ft^3/s$ (399 $m^3/s$) on Mar. 16, a peak that is expected to occur once in about 30 years. This flow has been exceeded only twice, 15,500 $ft^3/s$ (439 $m^3/s$) on Apr. 13, 1922, and 15,200 $ft^3/s$ (430 $m^3/s$) on Apr. 5, 1952, in the 77 years of record.

Heavy rain across the southeast part of the State caused record high flows on several smaller streams on Easter weekend. Peak flow of Turtle Creek near Clinton was 16,500 $ft^3/s$ (467 $m^3/s$) on Apr. 21. This flow exceeds that expected to occur once in 100 years. The highest flow previously recorded at this station since the record began in 1939 was 6,560 $ft^3/s$ (186 $m^3/s$) Feb. 24, 1949. A discharge of 13,500 $ft^3/s$ (382 $m^3/s$) occurred on the Menomonee River at Wauwatosa Apr. 21, a peak which also probably exceeds the 100-year flood.

Figure 3 illustrates the variation of monthly and yearly flows for 1973 at three gaging stations with long-term normal flows.

Figures 4 and 5 show extremes of stage during water year 1973 for selected lakes. Devils Lake near Baraboo reached a peak stage May 31 and June 1, the highest in its record of 1922-30 and 1934-73. At the end of September, North Lake near Elkhorn reached a stage 0.65 ft (0.198 m) higher than the previous record high of Mar. 25, 1939.

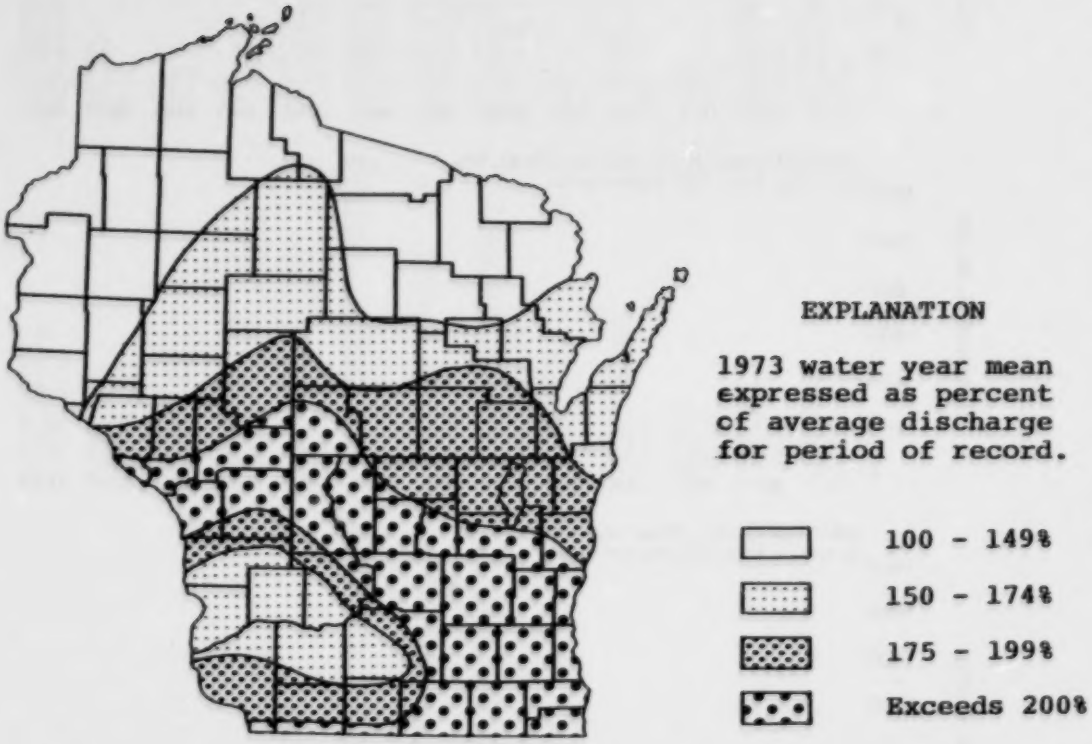



Figure 2. Variation of the 1973 runoff compared with the long-term average runoff.

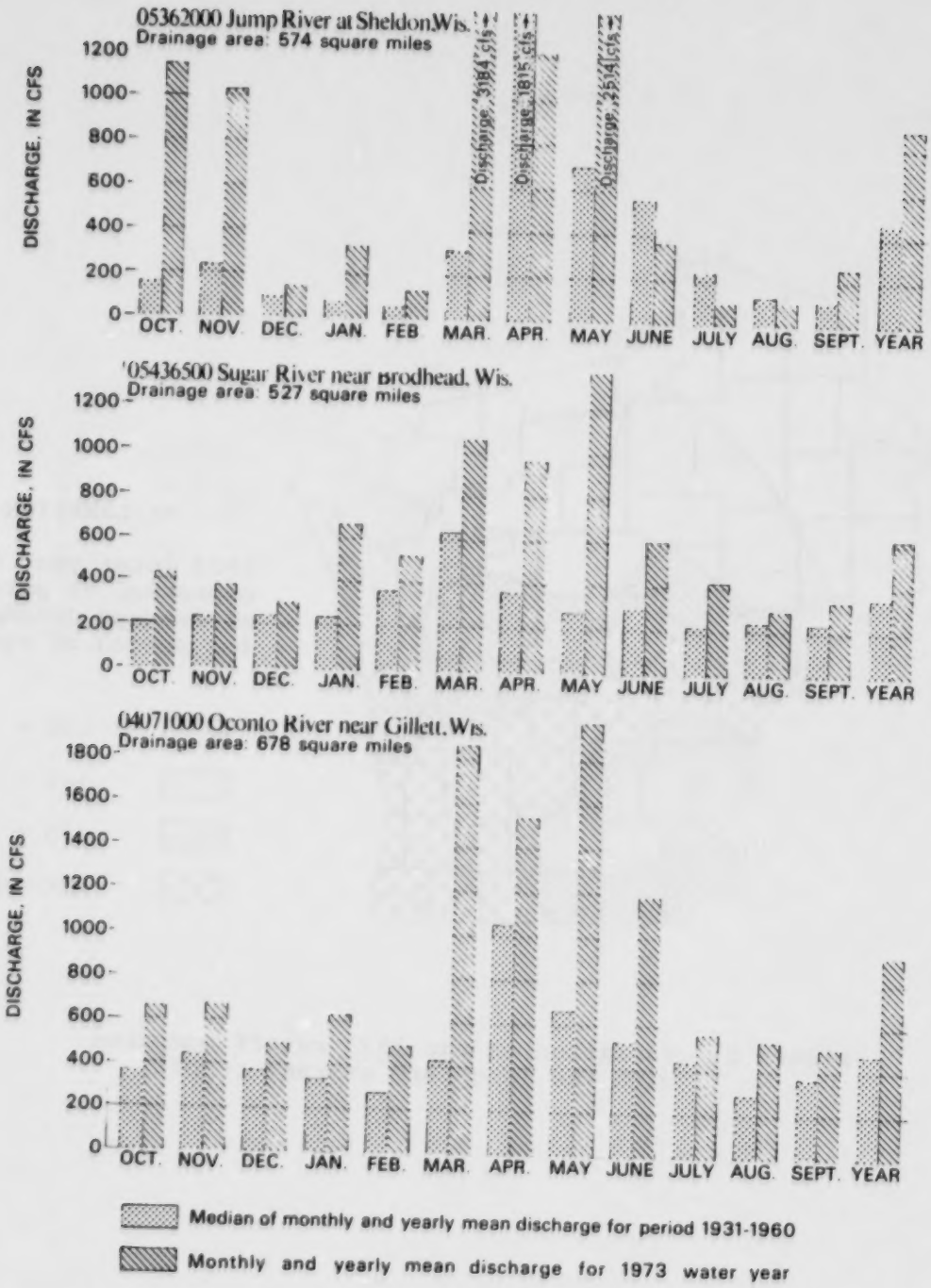



Figure 3. Comparison of discharge at three long-term representative gaging stations during 1973 water year with median discharge for period 1931-1960.

Lake stage in feet above an assumed datum.

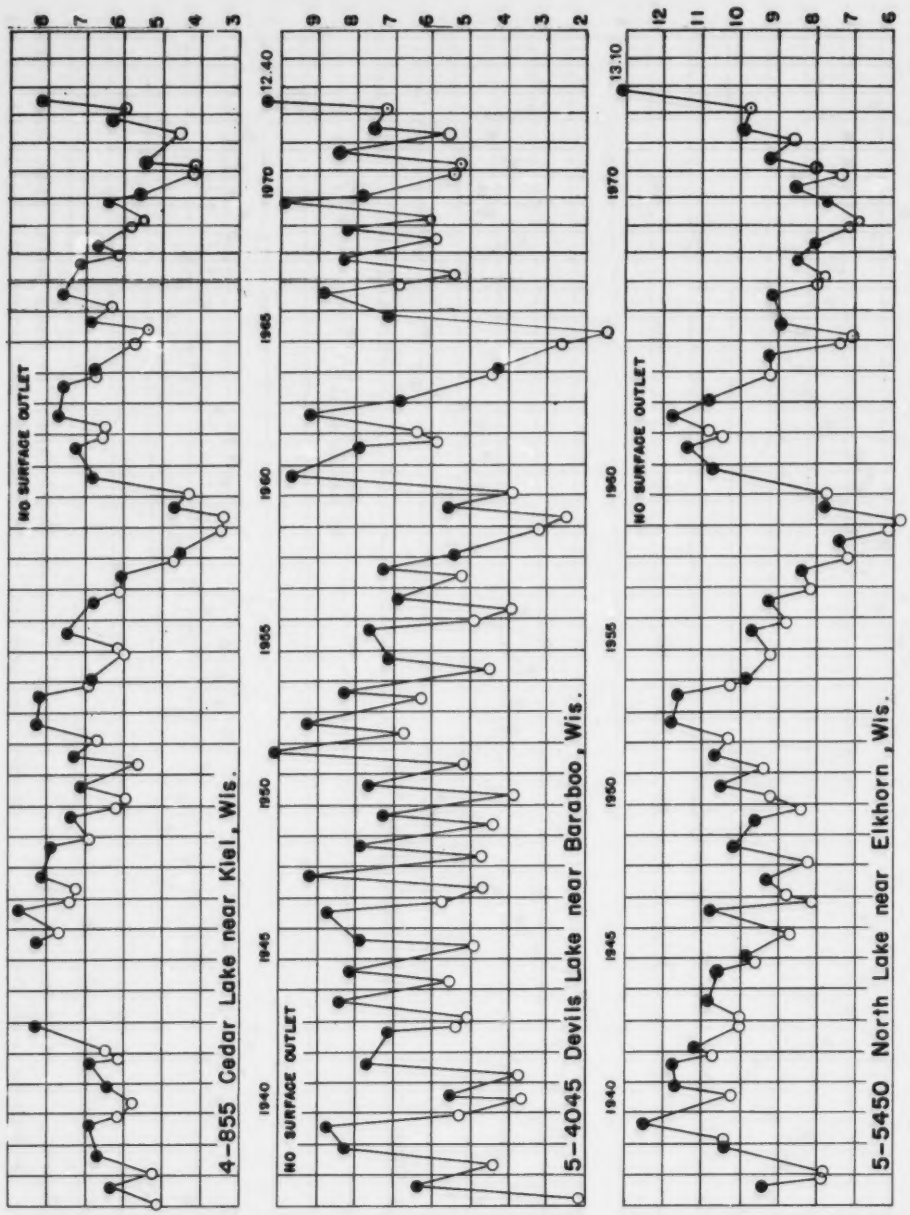



Figure 4. A comparison of extremes of stage of three southern lakes for each water year since 1937.

● Maximum stage observed ○ Minimum stage observed Connecting lines do not indicate actual stage between extremes.

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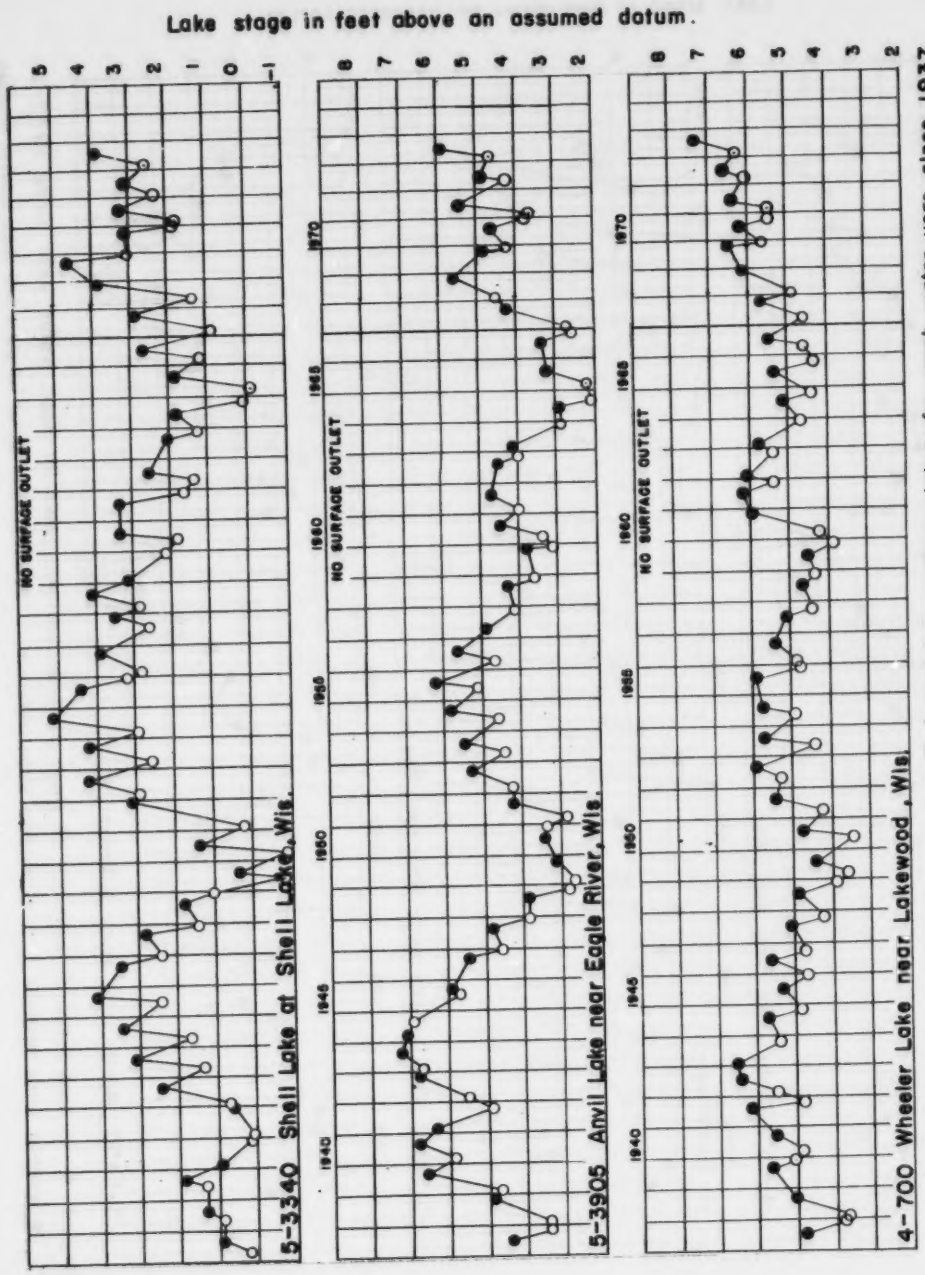


Figure 5. A comparison of extremes of stage of three northern lakes for each water year since 1937.

## 04025500 Bois Brule River at Brule, Wis.

LOCATION.--Lat 46°32'16", long 91°35'43", in NW¼ SW¼ sec.23, T.47 N., R.10 W., Douglas County, on right bank, 1.4 mi (2.3 km) southwest of Brule Post Office, 1.4 mi (2.3 km) downstream from Nebagamon Creek, and 1.7 mi (2.7 km) upstream from Little Brule River.

DRAINAGE AREA.--120 $mi^2$ (311 $km^2$).

PERIOD OF RECORD.--October 1942 to current year. Prior to January 1943 monthly discharge only, published in WSP 1307.

GAGE.--Water-stage recorder. Datum of gage is 948.49 ft (289.100 m) above mean sea level. Prior to October 1964, nonrecording gage at same site and datum supplemented by water-stage recorder part of 1959-62.

AVERAGE DISCHARGE.--31 years, 171 $ft^3/s$ (4.843 $m^3/s$), 19.35 in/yr (491 mm/yr).

EXTREMES.--Current year: Maximum discharge, 391 $ft^3/s$ (11.1 $m^3/s$) Mar. 28, Aug. 15, gage height, 2.79 ft (0.850 m); maximum gage height, 3.58 ft (1.091 m) Dec. 11, backwater from ice; minimum discharge, 121 $ft^3/s$ (3.43 $m^3/s$) July 22, 23, gage height, 1.47 ft (0.448 m).

Period of record: Maximum discharge, 1,520 $ft^3/s$ (43.0 $m^3/s$) June 5, 1944, gage height, 5.2 ft (1.58 m), from graph based on gage readings and from rating curve extended above 750 $ft^3/s$ (21.2 $m^3/s$); minimum observed, 67 $ft^3/s$ (1.90 $m^3/s$) Mar. 13, 1943.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 1207: Drainage area. WSP 1337: 1943(M), 1944, 1945-50(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 29 to Feb. 9.)

| | | | |
|---|---|---|---|
| 1.4 | 111 | 3.0 | 443 |
| 2.0 | 214 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 174 | 171 | 150 | 180 | 150 | 130 | 319 | 222 | 186 | 146 | 130 | 181 |
| 2 | 172 | 217 | 140 | 180 | 140 | 130 | 303 | 278 | 180 | 145 | 127 | 180 |
| 3 | 197 | 249 | 140 | 170 | 140 | 130 | 285 | 292 | 203 | 143 | 125 | 187 |
| 4 | 216 | 251 | 130 | 170 | 140 | 130 | 274 | 269 | 272 | 140 | 124 | 189 |
| 5 | 209 | 236 | 130 | 160 | 140 | 130 | 264 | 246 | 266 | 140 | 124 | 183 |
| 6 | 217 | 224 | 130 | 150 | 140 | 140 | 255 | 228 | 237 | 138 | 171 | 177 |
| 7 | 209 | 221 | 130 | 150 | 130 | 140 | 248 | 216 | 239 | 137 | 218 | 172 |
| 8 | 199 | 219 | 130 | 140 | 130 | 150 | 239 | 209 | 243 | 135 | 272 | 167 |
| 9 | 192 | 211 | 130 | 140 | 130 | 150 | 227 | 220 | 236 | 138 | 261 | 163 |
| 10 | 188 | 208 | 130 | 130 | 130 | 155 | 219 | 259 | 220 | 145 | 225 | 160 |
| 11 | 192 | 202 | 130 | 130 | 130 | 197 | 213 | 253 | 208 | 138 | 199 | 156 |
| 12 | 189 | 196 | 130 | 130 | 140 | 228 | 212 | 237 | 197 | 138 | 183 | 153 |
| 13 | 185 | 189 | 140 | 130 | 140 | 231 | 207 | 220 | 188 | 135 | 275 | 151 |
| 14 | 180 | 184 | 140 | 130 | 140 | 246 | 204 | 206 | 181 | 135 | 256 | 151 |
| 15 | 176 | 180 | 130 | 130 | 140 | 295 | 221 | 197 | 175 | 131 | 258 | 148 |
| 16 | 173 | 176 | 130 | 130 | 130 | 313 | 244 | 193 | 186 | 128 | 343 | 147 |
| 17 | 171 | 173 | 130 | 140 | 120 | 311 | 237 | 189 | 192 | 125 | 281 | 146 |
| 18 | 168 | 171 | 130 | 150 | 130 | 329 | 228 | 183 | 189 | 128 | 250 | 145 |
| 19 | 166 | 170 | 130 | 160 | 140 | 321 | 221 | 178 | 178 | 127 | 234 | 144 |
| 20 | 167 | 169 | 130 | 180 | 130 | 301 | 230 | 175 | 169 | 125 | 220 | 141 |
| 21 | 183 | 167 | 130 | 200 | 130 | 291 | 244 | 169 | 163 | 124 | 203 | 143 |
| 22 | 185 | 163 | 120 | 220 | 130 | 283 | 237 | 168 | 159 | 123 | 194 | 155 |
| 23 | 185 | 166 | 120 | 210 | 130 | 288 | 224 | 175 | 156 | 153 | 190 | 151 |
| 24 | 183 | 160 | 130 | 190 | 130 | 304 | 213 | 203 | 152 | 159 | 183 | 146 |
| 25 | 179 | 161 | 130 | 180 | 130 | 328 | 203 | 253 | 161 | 147 | 180 | 146 |
| 26 | 176 | 161 | 140 | 180 | 130 | 348 | 195 | 262 | 169 | 140 | 178 | 159 |
| 27 | 175 | 160 | 140 | 170 | 130 | 359 | 188 | 255 | 163 | 139 | 177 | 173 |
| 28 | 174 | 153 | 140 | 160 | 130 | 354 | 183 | 237 | 157 | 144 | 172 | 164 |
| 29 | 171 | 150 | 150 | 160 | ------ | 359 | 178 | 219 | 153 | 140 | 167 | 156 |
| 30 | 169 | 150 | 170 | 150 | ------ | 349 | 173 | 201 | 148 | 137 | 165 | 150 |
| 31 | 169 | ------ | 180 | 150 | ------ | 332 | ------ | 192 | ------ | 133 | 166 | ------ |
| TOTAL | 5,689 | 5,608 | 4,210 | 4,950 | 3,750 | 7,792 | 6,888 | 6,804 | 5,726 | 4,254 | 6,251 | 4,784 |
| MEAN | 184 | 187 | 136 | 160 | 134 | 251 | 230 | 219 | 191 | 137 | 202 | 159 |
| MAX | 217 | 251 | 180 | 220 | 150 | 386 | 319 | 292 | 272 | 159 | 343 | 189 |
| MIN | 166 | 150 | 120 | 130 | 120 | 130 | 173 | 168 | 148 | 123 | 124 | 141 |
| CFSM | 1.53 | 1.56 | 1.13 | 1.33 | 1.12 | 2.09 | 1.92 | 1.83 | 1.59 | 1.14 | 1.68 | 1.33 |
| IN. | 1.76 | 1.74 | 1.31 | 1.53 | 1.16 | 2.42 | 2.14 | 2.11 | 1.78 | 1.32 | 1.94 | 1.48 |

CAL YR 1972 TOTAL 74,292 MEAN 203 MAX 658 MIN 120 CFSM 1.69 IN 23.03
WTR YR 1973 TOTAL 66,705 MEAN 183 MAX 386 MIN 120 CFSM 1.53 IN 20.88

PEAK DISCHARGE (BASE, 300 $FT^3/S$)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 3-28 | 2300 | 2.79 | 391 | 8-15 | 2300 | 2.79 | 391 |
| 5- 3 | 0300 | 2.41 | 300 | | | | |

NOTE.--No gage-height record Dec. 28 to Jan. 31.

## 04026100 Long Lake near Iron River, Wis.

LOCATION.--Lat 46°35'05", long 91°20'33", in SW¼ sec.35, T.48 N., R.8 W., Bayfield County, at residence of Melvin C. Platt, east side of lake, 3.6 mi (5.8 km) northeast of Iron River.

DRAINAGE AREA.--1.28 $mi^2$ (3.32 $km^2$). Area of Long Lake, 184 acres (745,000 $m^2$).

PERIOD OF RECORD.--October 1964 to current year (fragmentary).

GAGE.--Nonrecording gage. Altitude of gage is 1,096 ft (334 m), from topographic map.

EXTREMES.--Current year: Maximum gage height observed, 4.38 ft (1.335 m) Sept. 6; minimum observed, 3.45 ft (1.052 m) Nov. 11.

Period of record: Maximum gage height observed, 4.38 ft (1.335 m) Sept. 6, 1973; minimum observed, 1.39 ft (0.424 m) Aug. 28, 1968.

REMARKS.--Lake has no surface outlet. Lake ice covered from Nov. 15 to Apr. 15.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | 4.10 | | | | 3.96 | |
| 2 | | 3.69 | | | | | | | | | | |
| 3 | | | | | | | | | | | | |
| 4 | | 3.50 | | | | | | | | 4.09 | | |
| 5 | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | 4.38 |
| 7 | 3.65 | | | | | | | | | | 4.11 | |
| 8 | | | | | | | | | | | | |
| 9 | | | | | | | | 4.22 | | | 4.28 | |
| 10 | | | | | | | | | | | | |
| 11 | | 3.45 | | | | | | | | | | |
| 12 | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | |
| 14 | 3.65 | | | | | | | | | | | |
| 15 | | | | | | | | | | | | 4.26 |
| 16 | | | | | | | | | | | | |
| 17 | | | | | | | | | | 4.08 | | |
| 18 | | | | | | | | | | | | 4.20 |
| 19 | | | | | | | | | | | | |
| 20 | | | | | | 4.38 | | | | | | |
| 21 | 3.55 | | | | | | | | | | | |
| 22 | | | | | | | | | | | | |
| 23 | | | | | | | | | | 3.96 | | 4.16 |
| 24 | | | | | | | | | | | 4.36 | |
| 25 | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | |
| 28 | 3.55 | | 3.80 | | | | | | | | | |
| 29 | | | | | ------ | | | | | | | 4.26 |
| 30 | | | | | ------ | | | | | | | |
| 31 | | ------ | | 4.02 | ------ | | ------ | | ------ | | | ------ |

## STREAMS TRIBUTARY TO LAKE SUPERIOR

### 04026450 Bad River near Mellen, Wis.

**LOCATION.**--Lat 46°16'14", long 90°42'26", in NE¼ NW¼ sec.26, T.44 N., R.3 W., Ashland County, Chequamegon National Forest, on left bank 150 ft (46 m) downstream from bridge on U.S. Forest Service Road 184, 250 ft (76 m) downstream from Iron River and 4.4 mi (7.1 km) southwest of Mellen.

**DRAINAGE AREA.**--83.4 mi² (216.0 km²).

**PERIOD OF RECORD.**--October 1970 to current year.

**GAGE.**--Water-stage recorder. Altitude of gage is 1,390 ft (424 m), from topographic map.

**EXTREMES.**--Current year: Maximum discharge, 620 ft³/s (17.6 m³/s) Mar. 29, gage height, 4.17 ft (1.271 m); minimum, 10 ft³/s (0.28 m³/s) July 22, gage height, 0.78 ft (0.238 m).

Period of record: Maximum discharge, 2,130 ft³/s (60.3 m³/s) July 23, 1972, gage height, 7.61 ft (2.320 m); minimum, 8.2 ft³/s (0.232 m³/s) Aug. 8, 9, 13, 1971 (gage height, 0.70 ft (0.213 m).

**REMARKS.**--Records good except those for winter periods and period of no gage-height record, which are poor.

Rating table, except period of no gage-height record, (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Mar. 17 to May 23; stage-discharge relation affected by ice Nov. 16, 19-22, Dec. 1-17, Jan. 1 to Mar. 7.)

| | | | |
|---|---|---|---|
| 0.8 | 11 | 2.0 | 123 |
| 0.9 | 15 | 3.0 | 330 |
| 1.1 | 26 | 4.0 | 599 |
| 1.5 | 59 | 5.0 | 935 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 123 | 51 | 40 | 37 | 41 | 31 | 452 | 251 | 133 | 37 | 29 | 40 |
| 2 | 95 | 178 | 38 | 39 | 42 | 32 | 386 | 563 | 108 | 30 | 24 | 36 |
| 3 | 172 | 394 | 36 | 39 | 43 | 36 | 328 | 554 | 106 | 26 | 20 | 40 |
| 4 | 286 | 354 | 35 | 38 | 43 | 42 | 272 | 506 | 169 | 22 | 16 | 52 |
| 5 | 261 | 307 | 34 | 35 | 44 | 47 | 209 | 444 | 323 | 20 | 14 | 45 |
| 6 | 217 | 279 | 33 | 34 | 43 | 52 | 189 | 366 | 323 | 19 | 18 | 36 |
| 7 | 180 | 300 | 33 | 32 | 40 | 80 | 187 | 307 | 272 | 18 | 52 | 30 |
| 8 | 144 | 382 | 32 | 29 | 37 | 162 | 156 | 275 | 254 | 15 | 245 | 26 |
| 9 | 116 | 307 | 32 | 28 | 33 | 165 | 137 | 254 | 209 | 20 | 180 | 24 |
| 10 | 108 | 261 | 32 | 27 | 31 | 153 | 117 | 382 | 162 | 22 | 120 | 21 |
| 11 | 106 | 226 | 31 | 26 | 32 | 186 | 110 | 404 | 123 | 18 | 100 | 20 |
| 12 | 99 | 186 | 31 | 26 | 32 | 252 | 106 | 344 | 97 | 19 | 90 | 19 |
| 13 | 90 | 149 | 31 | 25 | 33 | 300 | 103 | 314 | 78 | 22 | 100 | 18 |
| 14 | 82 | 123 | 30 | 25 | 34 | 402 | 111 | 268 | 63 | 21 | 140 | 17 |
| 15 | 73 | 110 | 30 | 27 | 37 | 511 | 211 | 240 | 50 | 19 | 120 | 17 |
| 16 | 70 | 96 | 30 | 27 | 37 | 473 | 384 | 201 | 45 | 16 | 90 | 16 |
| 17 | 64 | 93 | 30 | 27 | 38 | 412 | 394 | 165 | 42 | 15 | 70 | 16 |
| 18 | 59 | 76 | 30 | 30 | 38 | 372 | 409 | 132 | 37 | 14 | 60 | 16 |
| 19 | 54 | 70 | 30 | 48 | 38 | 318 | 372 | 103 | 34 | 14 | 50 | 16 |
| 20 | 53 | 64 | 30 | 68 | 38 | 263 | 342 | 90 | 30 | 12 | 45 | 16 |
| 21 | 73 | 60 | 31 | 66 | 38 | 238 | 321 | 82 | 27 | 12 | 38 | 20 |
| 22 | 83 | 58 | 32 | 62 | 38 | 224 | 286 | 78 | 30 | 11 | 34 | 64 |
| 23 | 82 | 57 | 32 | 58 | 38 | 222 | 250 | 100 | 33 | 19 | 30 | 61 |
| 24 | 79 | 54 | 32 | 52 | 36 | 224 | 203 | 132 | 29 | 30 | 27 | 49 |
| 25 | 72 | 55 | 31 | 50 | 35 | 266 | 165 | 384 | 29 | 32 | 25 | 50 |
| 26 | 70 | 59 | 32 | 47 | 34 | 337 | 133 | 462 | 55 | 27 | 24 | 85 |
| 27 | 70 | 56 | 35 | 43 | 33 | 430 | 112 | 392 | 63 | 48 | 22 | 172 |
| 28 | 66 | 50 | 35 | 40 | 31 | 551 | 95 | 300 | 53 | 69 | 21 | 147 |
| 29 | 61 | 44 | 36 | 38 | ------ | 614 | 88 | 211 | 46 | 58 | 20 | 104 |
| 30 | 54 | 44 | 44 | 38 | ------ | 551 | 82 | 154 | 44 | 45 | 24 | 84 |
| 31 | 53 | ------ | 52 | 39 | ------ | 489 | ------ | 151 | ------ | 35 | 43 | ------ |
| TOTAL | 3,215 | 4,543 | 1,040 | 1,200 | 1,037 | 8,435 | 6,710 | 8,609 | 3,067 | 793 | 1,891 | 1,357 |
| MEAN | 104 | 151 | 33.5 | 38.7 | 37.0 | 272 | 224 | 278 | 102 | 25.6 | 61.0 | 45.2 |
| MAX | 286 | 394 | 52 | 68 | 44 | 614 | 452 | 563 | 323 | 69 | 245 | 172 |
| MIN | 53 | 44 | 30 | 25 | 31 | 31 | 82 | 78 | 27 | 11 | 14 | 16 |
| CFSM | 1.25 | 1.81 | .40 | .46 | .44 | 3.26 | 2.69 | 3.33 | 1.22 | .31 | .73 | .54 |
| IN. | 1.43 | 2.03 | .46 | .54 | .46 | 3.76 | 2.99 | 3.84 | 1.37 | .35 | .84 | .61 |

CAL YR 1972 TOTAL 49,339 MEAN 135 MAX 2,040 MIN 15 CFSM 1.62 IN 22.01
WTR YR 1973 TOTAL 41,897 MEAN 115 MAX 614 MIN 11 CFSM 1.38 IN 18.69

NOTE.--No gage-height record Jan. 6-28, Aug. 9 to Sept. 16.

## STREAMS TRIBUTARY TO LAKE SUPERIOR

### 04026870 Alder Creek near Upson, Wis.

LOCATION.--Lat 46°23'09", long 90°24'30", in SE¼ SE¼ sec.7, T.45 N., R.1 E., Iron County, on right bank 10 ft (3 m) upstream from State Highway 122 bridge and 1.0 mi (1.6 km) north of Upson.

DRAINAGE AREA.--22.3 $mi^2$ (57.8 $km^2$).

PERIOD OF RECORD.--April 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,380.24 ft (420.697 m) above mean sea level. Prior to May 16, 1972, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum discharge, 312 $ft^3/s$ (8.84 $m^3/s$) May 2, gage height, 5.87 ft (1.789 m); minimum daily, 1.4 $ft^3/s$ (0.040 $m^3/s$) Sept. 15.

Period of record: Maximum discharge, 663 $ft^3/s$ (18.8 $m^3/s$) Aug. 17, 1972, gage height, 7.29 ft (2.222 m); minimum daily, 1.4 $ft^3/s$ (0.040 $m^3/s$), Sept. 15, 1973.

REMARKS.--Records fair except those for winter period, periods of no gage-height record, and discharges below 3 $ft^3/s$ (0.085 $m^3/s$), which are poor.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 27 to Mar. 9.)

Oct. 1 to Nov. 8

| | |
|---|---|
| 3.4 | 6.9 |
| 3.6 | 13 |
| 3.9 | 28 |
| 4.4 | 68 |
| 5.0 | 140 |

Nov. 9 to Sept. 30

| | | | |
|---|---|---|---|
| 2.9 | 1.0 | 3.5 | 18 |
| 3.0 | 2.2 | 3.9 | 43 |
| 3.1 | 4.2 | 5.0 | 171 |
| 3.3 | 10 | 6.0 | 352 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15 | 8.9 | 12 | 10 | 14 | 10 | 128 | 64 | 21 | 5.6 | 5.3 | 9.1 |
| 2 | 13 | 38 | 11 | 10 | 13 | 11 | 102 | 261 | 19 | 4.7 | 4.2 | 7.9 |
| 3 | 19 | 137 | 11 | 10 | 13 | 11 | 75 | 250 | 18 | 4.0 | 3.6 | 6.9 |
| 4 | 33 | 124 | 10 | 9.8 | 13 | 12 | 54 | 164 | 24 | 3.6 | 3.0 | 7.9 |
| 5 | 39 | 76 | 10 | 9.2 | 13 | 14 | 40 | 153 | 63 | 3.2 | 2.8 | 6.6 |
| 6 | 35 | 58 | 9.6 | 8.4 | 12 | 19 | 34 | 143 | 104 | 3.2 | 3.4 | 5.3 |
| 7 | 29 | 71 | 9.4 | 8.0 | 12 | 26 | 32 | 105 | 80 | 2.8 | 5.6 | 4.5 |
| 8 | 23 | 140 | 9.2 | 7.6 | 12 | 35 | 29 | 78 | 66 | 2.6 | 15 | 3.6 |
| 9 | 18 | 119 | 9.0 | 7.4 | 12 | 50 | 29 | 72 | 56 | 3.2 | 29 | 3.2 |
| 10 | 14 | 84 | 8.8 | 7.2 | 12 | 71 | 28 | 130 | 38 | 4.5 | 25 | 2.8 |
| 11 | 13 | 64 | 8.8 | 7.0 | 11 | 93 | 27 | 158 | 23 | 4.0 | 15 | 2.2 |
| 12 | 14 | 59 | 8.6 | 7.0 | 11 | 111 | 26 | 115 | 17 | 14 | 9.8 | 1.8 |
| 13 | 13 | 46 | 8.6 | 7.0 | 11 | 148 | 27 | 79 | 13 | 16 | 14 | 1.5 |
| 14 | 11 | 37 | 8.6 | 7.0 | 11 | 207 | 30 | 54 | 10 | 9.5 | 23 | 1.5 |
| 15 | 9.7 | 31 | 8.4 | 7.2 | 11 | 260 | 48 | 40 | 7.9 | 6.4 | 22 | 1.4 |
| 16 | 9.1 | 28 | 8.4 | 7.6 | 11 | 280 | 98 | 39 | 7.9 | 4.7 | 14 | 1.7 |
| 17 | 8.6 | 25 | 8.4 | 8.0 | 10 | 238 | 135 | 45 | 7.2 | 4.0 | 9.5 | 1.8 |
| 18 | 8.0 | 22 | 8.4 | 9.4 | 10 | 170 | 122 | 39 | 6.6 | 3.6 | 7.2 | 1.6 |
| 19 | 7.5 | 21 | 8.4 | 14 | 10 | 115 | 96 | 31 | 6.1 | 3.4 | 6.9 | 1.7 |
| 20 | 7.5 | 19 | 8.2 | 19 | 10 | 74 | 73 | 27 | 5.6 | 3.0 | 6.4 | 1.8 |
| 21 | 11 | 18 | 8.2 | 19 | 10 | 61 | 60 | 23 | 5.6 | 2.8 | 5.3 | 2.2 |
| 22 | 16 | 17 | 8.4 | 19 | 10 | 50 | 51 | 21 | 6.1 | 2.4 | 4.5 | 5.6 |
| 23 | 16 | 16 | 8.8 | 18 | 9.8 | 49 | 43 | 20 | 6.1 | 2.2 | 5.0 | 6.4 |
| 24 | 14 | 15 | 8.8 | 18 | 9.8 | 57 | 34 | 24 | 5.3 | 2.2 | 5.8 | 5.0 |
| 25 | 13 | 15 | 8.8 | 17 | 9.8 | 83 | 28 | 84 | 5.0 | 2.1 | 5.3 | 5.0 |
| 26 | 12 | 15 | 8.8 | 16 | 9.8 | 141 | 24 | 145 | 5.6 | 2.8 | 4.5 | 12 |
| 27 | 12 | 16 | 8.8 | 16 | 9.8 | 189 | 21 | 101 | 6.1 | 11 | 3.8 | 25 |
| 28 | 11 | 15 | 9.6 | 15 | 10 | 221 | 18 | 57 | 6.6 | 15 | 3.4 | 22 |
| 29 | 10 | 14 | 9.8 | 15 | ------ | 254 | 17 | 35 | 6.6 | 11 | 2.6 | 15 |
| 30 | 9.7 | 12 | 10 | 14 | ------ | 205 | 16 | 25 | 6.4 | 7.9 | 3.6 | 10 |
| 31 | 9.1 | ------ | 10 | 14 | ------ | 155 | ------ | 22 | ------ | 6.1 | 7.5 | ------ |
| TOTAL | 473.2 | 1,360.9 | 284.8 | 361.8 | 311.0 | 3,420 | 1,545 | 2,604 | 652.7 | 171.5 | 276.0 | 183.0 |
| MEAN | 15.3 | 45.4 | 9.19 | 11.7 | 11.1 | 110 | 51.5 | 84.0 | 21.8 | 5.53 | 8.90 | 6.10 |
| MAX | 39 | 140 | 12 | 19 | 14 | 280 | 135 | 261 | 104 | 16 | 29 | 25 |
| MIN | 7.5 | 8.9 | 8.2 | 7.0 | 9.8 | 10 | 16 | 20 | 5.0 | 2.1 | 2.6 | 1.4 |
| CFSM | .69 | 2.04 | .41 | .52 | .50 | 4.93 | 2.31 | 3.77 | .98 | .25 | .40 | .27 |
| IN. | .79 | 2.27 | .48 | .60 | .52 | 5.71 | 2.58 | 4.34 | 1.09 | .29 | .46 | .31 |

WTR YR 1973 TOTAL 11,643.9 MEAN 31.9 MAX 280 MIN 1.4 CFSM 1.43 IN 19.42

NOTE: No gage-height record Nov. 14 to Dec. 26, Mar. 18-20.

## 04027000 Bad River near Odanah, Wis.

LOCATION.--Lat 46°29'15", long 90°41'45", in SE¼ sec.2, T.46 N., R.3 W., Ashland County, on left bank just downstream from Elm Hoist Bridge, 5.0 mi (8.0 km) downstream from Potato River, 8.5 mi (13.7 km) south of Odanah, and 23 mi (37 km) from mouth.

DRAINAGE AREA.--611 mi² (1,582 km²).

PERIOD OF RECORD.--July 1914 to December 1922 (monthly discharge only for some periods published in WSP 1307), May 1948 to current year.

GAGE.--Water-stage recorder. Datum of gage is 668.30 ft (203.698 m) above mean sea level. May 17, 1948, to Nov. 6, 1959, and Oct. 19, 1960, to Nov. 23, 1961, water-stage recorder. Nov. 7, 1959, to Oct. 18, 1960, and Nov. 24, 1961, to July 12, 1962, nonrecording gage. Prior to Nov. 11, 1922, water-stage recorder at site 2 mi (3 km) downstream at different datum.

AVERAGE DISCHARGE.--33 years (1914-22, 1948-73), 617 ft³/s (17.47 m³/s), 13.71 in/yr (348 mm/yr).

EXTREMES.--Current year: Maximum discharge, about 8,000 ft³/s (227 m³/s) Mar. 15, gage height, 11.20 ft (3.414 m), backwater from ice; minimum, 132 ft³/s (3.74 m³/s) July 23, gage height, 2.35 ft (0.716 m).

Period of record: Maximum discharge, 27,700 ft³/s (784 m³/s) Apr. 24, 1960, gage height, 21.7 ft (6.61 m) from floodmarks and from rating curve extended above 12,000 ft³/s (340 m³/s) and a comparison with contracted-opening measurement of peak flow 45,600 ft³/s (1,290 m³/s) at Odanah, drainage area approximately 970 mi² (2,510 km²); minimum 49 ft³/s (1.39 m³/s) Aug. 8, 1964, gage height, 2.03 ft (0.619 m).

Flood of June 24, 1946, reached a stage of at least 22.2 ft (6.77 m), top of bridge submerged, information from Indian Service.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 1207: Drainage area. WSP 1337: 1922.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Nov. 9-13; stage-discharge relation affected by ice Nov. 28 to Mar. 15.)

| | | | |
|---|---|---|---|
| 2.0 | 40 | 6.0 | 2,260 |
| 2.5 | 174 | 9.0 | 5,000 |
| 3.0 | 336 | 10.0 | 6,220 |
| 4.0 | 830 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 605 | 318 | 250 | 280 | 310 | 230 | 2,630 | 1,490 | 748 | 282 | 321 | 424 |
| 2 | 520 | 310 | 250 | 290 | 310 | 240 | 2,440 | 4,970 | 645 | 246 | 275 | 348 |
| 3 | 555 | 360 | 250 | 290 | 320 | 340 | 2,140 | 4,420 | 575 | 221 | 239 | 368 |
| 4 | 1,120 | 900 | 220 | 290 | 320 | 360 | 1,760 | 3,230 | 872 | 209 | 209 | 525 |
| 5 | 1,120 | 2,700 | 210 | 270 | 330 | 400 | 1,490 | 2,640 | 1,450 | 191 | 191 | 447 |
| 6 | 1,060 | 2,400 | 210 | 250 | 320 | 420 | 1,310 | 2,240 | 1,630 | 177 | 194 | 368 |
| 7 | 992 | 2,200 | 210 | 240 | 300 | 920 | 1,250 | 1,800 | 1,550 | 163 | 332 | 306 |
| 8 | 836 | 2,000 | 220 | 220 | 270 | 1,400 | 1,110 | 1,580 | 1,420 | 157 | 1,520 | 262 |
| 9 | 682 | 1,926 | 220 | 210 | 250 | 1,900 | 968 | 1,470 | 1,210 | 149 | 2,330 | 233 |
| 10 | 580 | 1,370 | 220 | 200 | 230 | 1,700 | 819 | 2,610 | 920 | 186 | 1,580 | 215 |
| 11 | 535 | 890 | 220 | 200 | 240 | 2,100 | 758 | 2,480 | 742 | 180 | 1,130 | 200 |
| 12 | 530 | 830 | 220 | 190 | 240 | 3,000 | 731 | 1,960 | 605 | 306 | 792 | 186 |
| 13 | 515 | 764 | 230 | 190 | 250 | 4,100 | 720 | 1,530 | 495 | 402 | 860 | 174 |
| 14 | 495 | 698 | 230 | 190 | 250 | 5,000 | 726 | 1,220 | 419 | 303 | 1,440 | 171 |
| 15 | 419 | 635 | 230 | 200 | 270 | 6,200 | 956 | 1,040 | 360 | 236 | 1,220 | 168 |
| 16 | 385 | 580 | 240 | 200 | 270 | 5,960 | 2,000 | 956 | 321 | 194 | 932 | 166 |
| 17 | 364 | 555 | 240 | 200 | 280 | 4,270 | 2,410 | 956 | 299 | 171 | 687 | 163 |
| 18 | 344 | 530 | 240 | 220 | 280 | 3,220 | 2,260 | 842 | 279 | 157 | 540 | 154 |
| 19 | 321 | 495 | 240 | 390 | 280 | 2,730 | 1,940 | 748 | 259 | 152 | 480 | 154 |
| 20 | 299 | 460 | 240 | 510 | 280 | 2,160 | 1,700 | 670 | 233 | 149 | 406 | 149 |
| 21 | 303 | 428 | 240 | 500 | 280 | 1,780 | 1,480 | 600 | 227 | 141 | 340 | 154 |
| 22 | 389 | 424 | 240 | 470 | 280 | 1,510 | 1,340 | 545 | 233 | 138 | 296 | 246 |
| 23 | 402 | 456 | 240 | 440 | 280 | 1,960 | 1,180 | 550 | 255 | 143 | 275 | 314 |
| 24 | 406 | 447 | 240 | 410 | 270 | 2,160 | 1,010 | 580 | 252 | 221 | 265 | 285 |
| 25 | 406 | 447 | 240 | 380 | 260 | 2,720 | 866 | 1,880 | 236 | 268 | 246 | 262 |
| 26 | 389 | 428 | 240 | 350 | 250 | 2,940 | 753 | 2,520 | 262 | 259 | 233 | 321 |
| 27 | 380 | 410 | 230 | 330 | 240 | 3,170 | 670 | 2,040 | 352 | 415 | 227 | 742 |
| 28 | 364 | 280 | 250 | 310 | 230 | 3,840 | 605 | 1,490 | 368 | 550 | 209 | 736 |
| 29 | 340 | 280 | 270 | 300 | ------ | 4,060 | 545 | 1,110 | 344 | 535 | 197 | 600 |
| 30 | 325 | 280 | 310 | 300 | ------ | 3,530 | 510 | 866 | 321 | 424 | 194 | 480 |
| 31 | 318 | ------ | 370 | 300 | ------ | 3,000 | ------ | 770 | ------ | 376 | 424 | ------ |
| TOTAL | 16,299 | 14,755 | 7,440 | 9,120 | 7,690 | 77,320 | 39,077 | 51,803 | 17,882 | 7,701 | 18,584 | 9,321 |
| MEAN | 526 | 625 | 240 | 294 | 275 | 2,494 | 1,303 | 1,671 | 596 | 248 | 599 | 311 |
| MAX | 1,120 | 2,700 | 370 | 510 | 330 | 6,200 | 2,630 | 4,970 | 1,630 | 550 | 2,330 | 742 |
| MIN | 299 | 280 | 210 | 190 | 230 | 230 | 510 | 545 | 227 | 138 | 191 | 149 |
| CFSM | .86 | 1.35 | .39 | .48 | .45 | 4.08 | 2.13 | 2.73 | .98 | .41 | .98 | .51 |
| IN. | .99 | 1.51 | .45 | .56 | .47 | 4.71 | 2.38 | 3.15 | 1.09 | .47 | 1.13 | .57 |

CAL YR 1972 TOTAL 295,760 MEAN 808 MAX 8,680 MIN 140 CFSM 1.32 IN 18.01
WTR YR 1973 TOTAL 286,992 MEAN 786 MAX 6,200 MIN 138 CFSM 1.29 IN 17.47

PEAK DISCHARGE (BASE, 3,000 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 3-15 | -- | -- | a8,000 | 5- 2 | 0800 | 9.11 | 5,130 |
| 3-29 | 0700 | 8.18 | 4,180 | | | | |

a About.

## 04027500 White River near Ashland, Wis.

**LOCATION.**--Lat 46°29'50", long 90°54'15", in NE¼ sec.6, T.46 N., R.4 W., Ashland County, at downstream end of powerplant of Lake Superior District Power Co., 0.3 mi (0.5 km) downstream from bridge on State Highway 112 over dam, and 4.5 mi (7.2 km) south of Ashland city limits.

**DRAINAGE AREA.**--279 mi² (723 km²).

**PERIOD OF RECORD.**--May 1948 to current year.

**GAGE.**--Nonrecording gage. Datum of gage is 660.15 ft (201.214 m) above mean sea level (Lake Superior District Power Co. bench mark).

**AVERAGE DISCHARGE.**--25 years, 290 ft³/s (8.213 m³/s), 14.12 in/yr (359 mm/yr).

**EXTREMES.**--Current year: Maximum discharge, 1,650 ft³/s (46.7 m³/s) Mar. 15, gage height, 3.46 ft (1.055 m); minimum observed, 106 ft³/s (3.00 m³/s) Dec. 27, gage height, 0.83 ft (0.253 m); minimum daily, 120 ft³/s (3.398 m³/s) Jan. 30.

Period of record: Maximum discharge, 6,270 ft³/s (178 m³/s) July 1, 1953, gage height, 7.90 ft (2.408 m) from rating curve extended above 3,000 ft³/s (85.0 m³/s); minimum, 3.1 ft³/s (0.089 m³/s) Apr. 28-30, 1949, gage height, 0.09 ft (0.027 m).

**REMARKS.**--Records good except those for winter period, which are fair. Diurnal fluctuation caused by powerplant at gage.

**REVISIONS.**--WSP 1207: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 5 to Mar. 10.)

| | | | |
|---|---|---|---|
| 0.8 | 104 | 2.0 | 585 |
| .9 | 129 | 3.0 | 1,270 |
| 1.0 | 158 | 4.0 | 2,160 |
| 1.5 | 343 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 231 | 238 | 173 | 190 | 200 | 140 | 564 | 982 | 356 | 231 | 231 | 273 |
| 2 | 242 | 543 | 158 | 180 | 230 | 200 | 482 | 745 | 352 | 234 | 210 | 249 |
| 3 | 269 | 527 | 184 | 190 | 210 | 200 | 492 | 657 | 325 | 214 | 210 | 278 |
| 4 | 453 | 596 | 181 | 160 | 180 | 210 | 468 | 771 | 415 | 210 | 198 | 273 |
| 5 | 384 | 771 | 210 | 190 | 220 | 220 | 439 | 653 | 591 | 204 | 204 | 265 |
| 6 | 388 | 630 | 140 | 160 | 190 | 220 | 415 | 512 | 522 | 207 | 207 | 286 |
| 7 | 429 | 574 | 160 | 220 | 210 | 340 | 379 | 420 | 497 | 204 | 273 | 214 |
| 8 | 463 | 630 | 140 | 210 | 140 | 540 | 366 | 384 | 458 | 201 | 804 | 217 |
| 9 | 420 | 526 | 210 | 240 | 250 | 520 | 325 | 339 | 439 | 204 | 585 | 194 |
| 10 | 393 | 487 | 140 | 290 | 230 | 480 | 286 | 384 | 370 | 201 | 596 | 198 |
| 11 | 334 | 463 | 220 | 230 | 200 | 937 | 298 | 420 | 308 | 238 | 591 | 201 |
| 12 | 282 | 425 | 210 | 220 | 250 | 1,250 | 252 | 393 | 273 | 220 | 397 | 179 |
| 13 | 273 | 388 | 220 | 220 | 270 | 1,210 | 245 | 352 | 245 | 194 | 439 | 188 |
| 14 | 361 | 330 | 210 | 220 | 200 | 1,590 | 240 | 303 | 234 | 194 | 448 | 220 |
| 15 | 260 | 312 | 210 | 210 | 190 | 1,580 | 295 | 321 | 227 | 198 | 472 | 170 |
| 16 | 286 | 282 | 230 | 250 | 190 | 1,230 | 463 | 321 | 227 | 198 | 462 | 198 |
| 17 | 303 | 265 | 220 | 230 | 180 | 848 | 452 | 278 | 191 | 176 | 411 | 167 |
| 18 | 231 | 240 | 250 | 240 | 200 | 745 | 482 | 249 | 231 | 186 | 384 | 242 |
| 19 | 182 | 249 | 260 | 260 | 220 | 670 | 406 | 398 | 204 | 185 | 343 | 179 |
| 20 | 231 | 242 | 200 | 240 | 210 | 591 | 361 | 238 | 265 | 185 | 278 | 188 |
| 21 | 299 | 242 | 180 | 270 | 210 | 507 | 339 | 242 | 198 | 188 | 230 | 182 |
| 22 | 286 | 245 | 160 | 250 | 200 | 463 | 334 | 249 | 210 | 167 | 220 | 210 |
| 23 | 249 | 242 | 210 | 240 | 210 | 487 | 338 | 238 | 214 | 207 | 210 | 286 |
| 24 | 269 | 245 | 240 | 240 | 200 | 517 | 308 | 256 | 210 | 265 | 230 | 214 |
| 25 | 249 | 242 | 260 | 230 | 200 | 670 | 282 | 472 | 198 | 265 | 230 | 214 |
| 26 | 252 | 242 | 240 | 210 | 190 | 665 | 286 | 624 | 224 | 252 | 234 | 224 |
| 27 | 220 | 224 | 240 | 210 | 190 | 682 | 231 | 591 | 299 | 238 | 234 | 269 |
| 28 | 227 | 198 | 170 | 210 | 200 | 745 | 227 | 502 | 295 | 269 | 227 | 290 |
| 29 | 227 | 181 | 220 | 210 | ------ | 732 | 227 | 393 | 290 | 273 | 220 | 249 |
| 30 | 224 | 181 | 210 | 120 | ------ | 670 | 227 | 343 | 290 | 273 | 214 | 242 |
| 31 | 252 | ------ | 200 | 160 | ------ | 619 | ------ | 339 | ------ | 210 | 227 | ------ |
| TOTAL | 9,169 | 10,936 | 6,426 | 6,720 | 5,770 | 20,638 | 10,634 | 13,499 | 9,159 | 6,693 | 10,239 | 6,759 |
| MEAN | 296 | 365 | 207 | 217 | 206 | 666 | 354 | 435 | 305 | 216 | 330 | 225 |
| MAX | 463 | 771 | 260 | 290 | 270 | 1,590 | 564 | 982 | 591 | 273 | 804 | 290 |
| MIN | 182 | 161 | 158 | 120 | 140 | 190 | 227 | 238 | 191 | 167 | 198 | 167 |
| CFSM | 1.10 | 1.36 | .77 | .81 | .77 | 2.48 | 1.32 | 1.62 | 1.13 | .80 | 1.23 | .84 |
| IN. | 1.27 | 1.51 | .89 | .93 | .80 | 2.85 | 1.47 | 1.87 | 1.27 | .93 | 1.42 | .93 |

CAL YR 1972 TOTAL 133,469 MEAN 365 MAX 4,100 MIN 140 CFSM 1.36 IN 18.46
WTR YR 1973 TOTAL 116,642 MEAN 320 MAX 1,590 MIN 120 CFSM 1.19 IN 16.13

## 04031000 Black River near Bessemer, Mich.

LOCATION.--Lat 46°30'41", long 90°04'28", in NE¼ SE¼, sec.32, T.48 N., R.46 W., Gogebic County, on right bank 450 ft (137 m) downstream from bridge on county highway, 500 ft (152 m) downstream from Powder Mill Creek, and 2.5 mi (4.0 km) northwest of Bessemer.

DRAINAGE AREA.--200 $mi^2$ (518 $km^2$).

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,154.3 ft (351.83 m) above sea level (levels by registered surveyor).

AVERAGE DISCHARGE.--19 years, 238 $ft^3/s$ (6.740 $m^3/s$), 16.16 in/yr (410 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,000 $ft^3/s$ (56.6 $m^3/s$) Mar. 15 (gage height, 5.68 ft or 1.731 m); minimum, 18 $ft^3/s$ (0.51 $m^3/s$) Sept. 20 (gage height, 0.58 ft or 0.177 m).
Period of record: Maximum discharge, 14,800 $ft^3/s$ (419 $m^3/s$) Apr. 24, 1960 (gage height, 14.27 ft or 4.349 m, from flood mark), from rating curve extended above 5,300 $ft^3/s$ (150 $m^3/s$) on basis of slope-area measurement of peak flow; minimum, 7.8 $ft^3/s$ (0.22 $m^3/s$) Sept. 9, 1970 (gage height, 0.36 ft or 0.110 m).

REMARKS.--Records good except those for winter periods, which are fair. Prior to 1967, some ground water pumped from mines at Bessemer.

REVISIONS.--WSP 1911: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 481 | 110 | 130 | 100 | 98 | 60 | 1,340 | 664 | 186 | 186 | 95 | 55 |
| 2 | 331 | 641 | 120 | 105 | 105 | 63 | 1,130 | 1,400 | 163 | 150 | 70 | 47 |
| 3 | 435 | 1,280 | 110 | 100 | 110 | 70 | 906 | 1,290 | 152 | 117 | 58 | 44 |
| 4 | 755 | 990 | 100 | 90 | 110 | 85 | 734 | 1,210 | 243 | 94 | 51 | 49 |
| 5 | 730 | 839 | 90 | 95 | 105 | 90 | 602 | 1,270 | 615 | 76 | 47 | 43 |
| 6 | 786 | 744 | 85 | 93 | 100 | 75 | 530 | 1,100 | 566 | 66 | 53 | 39 |
| 7 | 682 | 1,140 | 82 | 91 | 95 | 115 | 516 | 894 | 729 | 59 | 60 | 32 |
| 8 | 478 | 1,370 | 78 | 90 | 90 | 390 | 450 | 892 | 683 | 51 | 166 | 30 |
| 9 | 379 | 1,040 | 77 | 90 | 85 | 375 | 372 | 927 | 526 | 46 | 272 | 28 |
| 10 | 313 | 814 | 76 | 89 | 80 | 360 | 300 | 1,450 | 375 | 52 | 175 | 28 |
| 11 | 274 | 680 | 75 | 88 | 76 | 500 | 292 | 1,190 | 288 | 49 | 133 | 28 |
| 12 | 243 | 563 | 74 | 87 | 73 | 750 | 282 | 903 | 223 | 151 | 107 | 25 |
| 13 | 221 | 455 | 74 | 86 | 70 | 1,240 | 270 | 717 | 173 | 163 | 103 | 22 |
| 14 | 195 | 367 | 74 | 85 | 68 | 1,600 | 295 | 576 | 140 | 116 | 122 | 21 |
| 15 | 171 | 300 | 74 | 84 | 65 | 1,830 | 511 | 474 | 115 | 93 | 105 | 21 |
| 16 | 159 | 273 | 74 | 84 | 63 | 1,410 | 1,040 | 426 | 103 | 75 | 94 | 21 |
| 17 | 140 | 227 | 74 | 84 | 61 | 1,170 | 1,140 | 367 | 92 | 64 | 79 | 20 |
| 18 | 134 | 203 | 73 | 90 | 61 | 991 | 1,070 | 319 | 81 | 59 | 84 | 19 |
| 19 | 124 | 201 | 73 | 115 | 60 | 901 | 929 | 293 | 74 | 55 | 109 | 19 |
| 20 | 120 | 180 | 73 | 150 | 60 | 806 | 817 | 257 | 66 | 48 | 82 | 19 |
| 21 | 183 | 162 | 73 | 145 | 59 | 718 | 722 | 225 | 60 | 44 | 62 | 21 |
| 22 | 192 | 145 | 73 | 135 | 59 | 682 | 670 | 200 | 58 | 41 | 53 | 52 |
| 23 | 183 | 120 | 73 | 130 | 59 | 678 | 554 | 176 | 75 | 38 | 63 | 50 |
| 24 | 177 | 135 | 72 | 120 | 59 | 718 | 464 | 175 | 68 | 36 | 60 | 42 |
| 25 | 164 | 150 | 72 | 115 | 59 | 924 | 386 | 468 | 62 | 39 | 54 | 40 |
| 26 | 150 | 140 | 72 | 110 | 58 | 1,140 | 324 | 492 | 248 | 40 | 50 | 110 |
| 27 | 151 | 130 | 72 | 105 | 58 | 1,280 | 275 | 411 | 258 | 43 | 46 | 282 |
| 28 | 139 | 120 | 72 | 100 | 59 | 1,550 | 237 | 330 | 268 | 50 | 42 | 200 |
| 29 | 125 | 105 | 76 | 100 | ------ | 1,600 | 210 | 269 | 243 | 44 | 37 | 174 |
| 30 | 118 | 125 | 85 | 98 | ------ | 1,560 | 189 | 220 | 228 | 92 | 38 | 152 |
| 31 | 114 | ------ | 95 | 98 | ------ | 1,480 | ------ | 200 | ------ | 90 | 57 | ------ |
| TOTAL | 8,615 | 13,765 | 2,521 | 3,160 | 2,105 | 25,291 | 17,557 | 19,881 | 7,161 | 2,327 | 2,627 | 1,733 |
| MEAN | 278 | 459 | 81.3 | 102 | 75.2 | 816 | 585 | 639 | 239 | 75.1 | 84.7 | 57.8 |
| MAX | 755 | 1,370 | 130 | 150 | 110 | 1,830 | 1,340 | 1,450 | 729 | 186 | 272 | 282 |
| MIN | 114 | 105 | 72 | 84 | 58 | 60 | 189 | 175 | 58 | 36 | 37 | 19 |
| CFSM | 1.39 | 2.30 | .41 | .51 | .38 | 4.08 | 2.93 | 3.20 | 1.20 | .38 | .42 | .29 |
| IN. | 1.60 | 2.56 | .47 | .59 | .39 | 4.70 | 3.27 | 3.68 | 1.33 | .43 | .49 | .32 |

CAL YR 1972 TOTAL 189,595 MEAN 299 MAX 5,830 MIN 33 CFSM 1.50 IN 20.38
WTR YR 1973 TOTAL 186,663 MEAN 292 MAX 1,830 MIN 19 CFSM 1.46 IN 19.84

## 04031500 Presque Isle River at Marenisco, Mich.

LOCATION.--Lat 46°22'20", long 89°41'32", in SE¼ NW¼ sec.21, T.46 N., R.43 W., Gogebic County, on left bank 0.3 mi (0.5 km) upstream from highway bridge in Marenisco, and 1.5 mi (2.4 km) downstream from confluence of East and West Branches.

DRAINAGE AREA.--171 $mi^2$ (443 $km^2$).

PERIOD OF RECORD.--February 1945 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,489.30 ft (453.939 m) above mean sea level (levels by Michigan Department of Natural Resources). Prior to May 27, 1949, nonrecording gage at site 0.3 mi (0.5 km) downstream at different datum.

AVERAGE DISCHARGE.--28 years, 179 $ft^3/s$ (5.069 $m^3/s$), 14.22 in/yr (361 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,050 $ft^3/s$ (29.7 $m^3/s$) Mar. 16 (gage height, 7.34 ft or 2.237 m); maximum gage height, 7.42 ft (2.262 m) Mar. 13 (backwater from ice); minimum discharge, 57 $ft^3/s$ (1.61 $m^3/s$) July 25; minimum gage height, 3.59 ft (1.094 m) Aug. 30.
Period of record: Maximum discharge, 3,520 $ft^3/s$ (99.7 $m^3/s$) Apr. 25, 1960 (gage height, 11.25 ft or 3.429 m); minimum observed, 13 $ft^3/s$ (0.37 $m^3/s$) Sept. 30, 1948 (gage height, 2.25 ft or 0.686 m, site and datum then in use).

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation for lake or pond level control at several places above station.

REVISIONS (WATER YEARS).--WSP 1707: 1954. WSP 1911: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 287 | 192 | 155 | 135 | 120 | 105 | 673 | 355 | 241 | 120 | 120 | 343 |
| 2 | 266 | 307 | 145 | 135 | 120 | 105 | 655 | 665 | 231 | 108 | 107 | 231 |
| 3 | 364 | 510 | 135 | 135 | 120 | 110 | 619 | 834 | 215 | 102 | 85 | 175 |
| 4 | 524 | 567 | 135 | 130 | 120 | 115 | 530 | 809 | 224 | 90 | 71 | 178 |
| 5 | 554 | 578 | 130 | 130 | 120 | 115 | 465 | 770 | 257 | 85 | 64 | 151 |
| 6 | 545 | 540 | 130 | 125 | 120 | 140 | 448 | 735 | 243 | 84 | 63 | 126 |
| 7 | 517 | 565 | 135 | 120 | 120 | 280 | 421 | 780 | 256 | 81 | 72 | 108 |
| 8 | 459 | 635 | 135 | 120 | 115 | 280 | 393 | 774 | 276 | 74 | 151 | 95 |
| 9 | 389 | 642 | 140 | 120 | 115 | 340 | 368 | 811 | 252 | 71 | 225 | 88 |
| 10 | 338 | 584 | 140 | 120 | 110 | 290 | 344 | 832 | 220 | 76 | 164 | 84 |
| 11 | 332 | 520 | 140 | 120 | 110 | 350 | 281 | 842 | 200 | 74 | 119 | 76 |
| 12 | 325 | 462 | 140 | 120 | 110 | 430 | 298 | 781 | 182 | 132 | 94 | 70 |
| 13 | 322 | 407 | 135 | 120 | 110 | 530 | 344 | 657 | 165 | 188 | 106 | 67 |
| 14 | 296 | 295 | 135 | 120 | 115 | 680 | 335 | 555 | 151 | 133 | 184 | 67 |
| 15 | 282 | 225 | 135 | 120 | 115 | 880 | 362 | 480 | 140 | 101 | 151 | 66 |
| 16 | 176 | 236 | 130 | 125 | 110 | 1,020 | 491 | 416 | 145 | 85 | 116 | 66 |
| 17 | 163 | 250 | 130 | 130 | 110 | 980 | 690 | 388 | 232 | 76 | 93 | 64 |
| 18 | 183 | 233 | 130 | 140 | 105 | 850 | 762 | 363 | 230 | 71 | 102 | 63 |
| 19 | 189 | 236 | 125 | 150 | 105 | 756 | 752 | 359 | 186 | 71 | 136 | 61 |
| 20 | 193 | 227 | 125 | 145 | 105 | 679 | 692 | 352 | 158 | 68 | 112 | 65 |
| 21 | 215 | 208 | 125 | 145 | 105 | 610 | 630 | 325 | 144 | 65 | 94 | 66 |
| 22 | 224 | 199 | 125 | 140 | 105 | 562 | 567 | 304 | 136 | 63 | 87 | 92 |
| 23 | 240 | 170 | 125 | 135 | 105 | 530 | 523 | 283 | 134 | 61 | 98 | 93 |
| 24 | 257 | 190 | 125 | 135 | 105 | 468 | 473 | 274 | 127 | 63 | 98 | 84 |
| 25 | 250 | 181 | 125 | 130 | 105 | 478 | 433 | 354 | 126 | 62 | 86 | 81 |
| 26 | 248 | 179 | 120 | 130 | 105 | 530 | 384 | 413 | 147 | 81 | 76 | 230 |
| 27 | 230 | 177 | 120 | 125 | 105 | 583 | 326 | 375 | 149 | 137 | 71 | 492 |
| 28 | 223 | 172 | 120 | 125 | 105 | 646 | 270 | 333 | 140 | 146 | 66 | 471 |
| 29 | 283 | 130 | 125 | 120 | ------ | 788 | 245 | 293 | 130 | 122 | 61 | 299 |
| 30 | 197 | 168 | 125 | 120 | ------ | 724 | 237 | 265 | 131 | 97 | 110 | 204 |
| 31 | 197 | ------ | 130 | 120 | ------ | 694 | ------ | 250 | ------ | 107 | 407 | ------ |
| TOTAL | 9,180 | 9,985 | 4,070 | 3,985 | 3,115 | 15,496 | 14,011 | 15,947 | 5,568 | 2,894 | 3,589 | 4,356 |
| MEAN | 296 | 333 | 131 | 129 | 111 | 500 | 467 | 514 | 186 | 93.4 | 116 | 145 |
| MAX | 554 | 642 | 155 | 150 | 120 | 1,020 | 762 | 842 | 276 | 188 | 407 | 492 |
| MIN | 163 | 130 | 120 | 120 | 105 | 105 | 237 | 250 | 126 | 61 | 61 | 61 |
| CFSM | 1.73 | 1.95 | .77 | .75 | .65 | 2.92 | 2.73 | 3.01 | 1.09 | .55 | .68 | .85 |
| IN. | 2.00 | 2.17 | .89 | .87 | .68 | 3.37 | 3.05 | 3.47 | 1.21 | .63 | .78 | .95 |

CAL YR 1972 TOTAL 83,947 MEAN 229 MAX 1,180 MIN 64 CFSM 1.34 IN 18.26
WTR YR 1973 TOTAL 92,196 MEAN 253 MAX 1,020 MIN 61 CFSM 1.48 IN 20.06

## 04037500 Cisco Branch Ontonagon River at Cisco Lake Outlet, Mich.

LOCATION.--Lat 46°15'12", long 89°27'05", in E½ sec.32, T.45 N., R.41 W., Gogebic County, on left bank 80 ft (24 m) downstream from Cisco Lake Dam, 2.5 mi (4.0 km) upstream from Langford Creek, 5.0 mi (8.0 km) upstream from U.S. Highway 2, and 13 mi (21 km) west of Watersmeet.

DRAINAGE AREA.--50.7 $mi^2$ (131.3 $km^2$).

PERIOD OF RECORD.--October 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,672.69 ft (509.836 m) above mean sea level. Prior to Oct. 1, 1968, nonrecording gage at same site at datum 4.00 ft (1.219 m) higher.

AVERAGE DISCHARGE.--29 years, 47.4 $ft^3/s$ (1.342 $m^3/s$), 12.70 in/yr (323 mm/yr).

EXTREMES.--Current year: Maximum discharge, 200 $ft^3/s$ (5.66 $m^3/s$) May 10, 11 (gage height, 5.61 ft or 1.710 m); minimum daily, 0.34 $ft^3/s$ (0.010 $m^3/s$) Sept. 20; minimum gage height, 3.88 ft (1.183 m) Sept. 19-21.
Period of record: Maximum discharge, 288 $ft^3/s$ (8.16 $m^3/s$) May 1-4, 1951 (gage height, 6.10 ft or 1.859 m, present datum); minimum daily, 0.13 $ft^3/s$ (0.004 $m^3/s$) Aug. 4-7, Aug. 22 to Sept. 5, 1970.

REMARKS.--Records good except those below 25 $ft^3/s$ (0.7 $m^3/s$), which are fair. Flow completely regulated by Cisco Lake (usable capacity, 15,600 acre-ft or 19.2 $hm^3$).

REVISIONS.--WSP 1911: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 121 | 97 | 46 | 50 | 36 | 46 | 108 | 6.7 | 48 | 17 | 42 | 112 |
| 2 | 120 | 100 | 46 | 57 | 39 | 46 | 109 | 60 | 49 | 17 | 44 | 108 |
| 3 | 121 | 105 | 46 | 63 | 47 | 39 | 110 | 118 | 49 | 1.8 | 44 | 107 |
| 4 | 121 | 106 | 46 | 70 | 46 | 38 | 109 | 124 | 91 | 1.6 | 44 | 107 |
| 5 | 119 | 106 | 46 | 74 | 46 | 38 | 110 | 136 | 119 | 1.7 | 43 | 80 |
| 6 | 122 | 107 | 47 | 73 | 46 | 38 | 108 | 138 | 106 | 1.8 | 44 | 28 |
| 7 | 121 | 108 | 46 | 72 | 46 | 63 | 107 | 142 | 97 | 2.1 | 44 | 1.7 |
| 8 | 115 | 110 | 46 | 66 | 46 | 87 | 105 | 179 | 97 | 1.7 | 67 | 1.5 |
| 9 | 115 | 111 | 46 | 53 | 47 | 87 | 102 | 191 | 94 | 1.8 | 83 | 1.2 |
| 10 | 116 | 109 | 46 | 46 | 47 | 87 | 100 | 199 | 93 | 17 | 79 | .55 |
| 11 | 129 | 105 | 46 | 46 | 47 | 99 | 87 | 196 | 42 | 29 | 77 | .40 |
| 12 | 142 | 103 | 46 | 46 | 46 | 103 | 77 | 189 | 3.4 | 118 | 67 | .40 |
| 13 | 139 | 102 | 47 | 44 | 36 | 104 | 76 | 182 | 3.0 | 163 | 58 | .40 |
| 14 | 139 | 99 | 54 | 42 | 30 | 107 | 76 | 178 | 2.7 | 90 | 59 | .37 |
| 15 | 143 | 98 | 60 | 33 | 30 | 113 | 77 | 178 | 2.1 | 27 | 43 | .37 |
| 16 | 132 | 96 | 60 | 27 | 30 | 116 | 84 | 172 | 1.7 | 27 | 26 | .37 |
| 17 | 129 | 94 | 59 | 28 | 31 | 116 | 91 | 153 | 2.2 | 27 | 26 | .37 |
| 18 | 125 | 92 | 51 | 29 | 31 | 116 | 85 | 138 | 17 | 25 | 35 | .37 |
| 19 | 123 | 90 | 44 | 30 | 31 | 116 | 86 | 136 | 27 | 26 | 43 | .36 |
| 20 | 120 | 88 | 44 | 31 | 31 | 115 | 87 | 132 | 26 | 12 | 48 | .34 |
| 21 | 118 | 87 | 44 | 31 | 32 | 113 | 32 | 94 | 25 | 1.5 | 33 | .55 |
| 22 | 115 | 86 | 44 | 48 | 33 | 112 | 5.9 | 61 | 26 | 1.3 | 25 | 9.3 |
| 23 | 115 | 85 | 44 | 63 | 49 | 111 | 4.7 | 31 | 27 | 1.1 | 25 | 16 |
| 24 | 114 | 84 | 43 | 63 | 63 | 110 | 4.1 | 6.5 | 27 | 1.1 | 25 | 34 |
| 25 | 112 | 83 | 44 | 62 | 62 | 109 | 3.7 | 63 | 28 | .91 | 25 | 49 |
| 26 | 110 | 82 | 44 | 61 | 53 | 109 | 3.2 | 114 | 27 | .95 | 25 | 105 |
| 27 | 108 | 81 | 44 | 60 | 47 | 109 | 2.7 | 124 | 27 | 24 | 25 | 173 |
| 28 | 104 | 75 | 44 | 59 | 47 | 108 | 2.3 | 118 | 19 | 45 | 25 | 183 |
| 29 | 103 | 56 | 45 | 59 | ------ | 108 | 2.0 | 81 | 16 | 45 | 19 | 179 |
| 30 | 101 | 45 | 48 | 50 | ------ | 108 | 4.3 | 48 | 16 | 45 | 9.8 | 180 |
| 31 | 99 | ------ | 50 | 44 | ------ | 108 | ------ | 47 | ------ | 44 | 65 | ------ |
| TOTAL | 3,711 | 2,790 | 1,466 | 1,580 | 1,175 | 2,855 | 1,958.9 | 3,727.2 | 1,208.1 | 809.36 | 1,309.8 | 1,479.55 |
| MEAN | 120 | 93.0 | 47.3 | 51.0 | 42.0 | 92.1 | 65.3 | 120 | 40.3 | 26.1 | 42.3 | 49.3 |
| MAX | 143 | 111 | 60 | 74 | 63 | 116 | 110 | 199 | 119 | 163 | 83 | 183 |
| MIN | 99 | 45 | 43 | 27 | 30 | 38 | 2.0 | 6.5 | 1.7 | .91 | 9.8 | .34 |

CAL YR 1972 TOTAL 21,251.17 MEAN 58.1 MAX 197 MIN .19
WTR YR 1973 TOTAL 24,069.91 MEAN 65.9 MAX 199 MIN .34

## 04061000 Brule River near Florence, Wis.

LOCATION.--Lat 45°57'31", long 88°15'57", in SE¼ SE¼ sec.11, T.41 N., R.32 W., Michigan meridian, Iron County, on left bank 40 ft (12 m) upstream from highway bridge, 1.0 mi (1.6 km) upstream from Paint River, 2.5 mi (4.0 km) north of Florence, and 5.0 mi (8.0 km) upstream from confluence with Michigamme River.

DRAINAGE AREA.--389 $mi^2$ (1,008 $km^2$).

PERIOD OF RECORD.--January 1914 to February 1916, June 1944 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,210 ft (369 m) from topographic map (nearest 10 ft). Prior to Aug. 29, 1944, nonrecording gage at bridge 40 ft (12 m) downstream at same datum.

AVERAGE DISCHARGE.--30 years, (1914-15, 1944-73), 512 $ft^3/s$ (14.50 $m^3/s$), 12.57 in/yr (319 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,660 $ft^3/s$ (47.0 $m^3/s$) Mar. 16 (gage height, 4.05 ft or 1.234 m); maximum gage height, 7.43 ft (2.265 m) Mar. 13 (backwater from ice); minimum discharge, 295 $ft^3/s$ (8.35 $m^3/s$) Sept. 19 (gage height, 2.20 ft or 0.671 m).
Period of record: Maximum discharge, 4,700 $ft^3/s$ (133 $m^3/s$) July 2, 1953 (gage height, 6.57 ft or 2.003 m); maximum gage height, 8.27 ft (2.521 m) Dec. 26, 1969 (backwater from ice); minimum discharge, 118 $ft^3/s$ (3.34 $m^3/s$) Dec. 2, 1963 (discharge measurement); minimum gage height, 1.79 ft (0.546 m) July 24, 1964.

REMARKS.--Records good except those for winter periods, which are fair. Discharge includes some mine pumpage (see sta 04060500).

REVISIONS (WATER YEARS).--WSP 1387: 1914-16. WSP 1911: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 727 | 436 | 370 | 380 | 330 | 310 | 845 | 681 | 512 | 392 | 429 | 537 |
| 2 | 622 | 583 | 370 | 375 | 335 | 310 | 945 | 1,200 | 503 | 377 | 432 | 467 |
| 3 | 592 | 1,030 | 365 | 370 | 340 | 315 | 932 | 1,560 | 503 | 366 | 377 | 431 |
| 4 | 664 | 1,060 | 360 | 365 | 345 | 320 | 872 | 1,530 | 560 | 350 | 347 | 428 |
| 5 | 639 | 901 | 355 | 360 | 340 | 340 | 770 | 1,210 | 532 | 343 | 329 | 399 |
| 6 | 740 | 755 | 350 | 355 | 335 | 400 | 700 | 973 | 505 | 337 | 318 | 362 |
| 7 | 690 | 722 | 350 | 355 | 330 | 600 | 676 | 891 | 560 | 337 | 317 | 337 |
| 8 | 593 | 802 | 350 | 350 | 325 | 700 | 650 | 1,190 | 640 | 325 | 342 | 322 |
| 9 | 538 | 767 | 345 | 345 | 320 | 680 | 602 | 1,350 | 628 | 323 | 447 | 313 |
| 10 | 493 | 688 | 345 | 340 | 310 | 660 | 563 | 1,310 | 551 | 387 | 404 | 318 |
| 11 | 490 | 631 | 340 | 330 | 305 | 800 | 542 | 1,270 | 500 | 398 | 368 | 307 |
| 12 | 484 | 585 | 340 | 330 | 310 | 1,050 | 542 | 1,140 | 476 | 403 | 353 | 305 |
| 13 | 456 | 545 | 340 | 325 | 315 | 1,200 | 518 | 979 | 444 | 455 | 349 | 301 |
| 14 | 462 | 514 | 345 | 325 | 320 | 1,400 | 510 | 851 | 428 | 413 | 387 | 304 |
| 15 | 427 | 482 | 345 | 330 | 315 | 1,590 | 623 | 763 | 413 | 372 | 386 | 304 |
| 16 | 413 | 463 | 350 | 335 | 310 | 1,630 | 1,090 | 716 | 481 | 351 | 374 | 303 |
| 17 | 398 | 461 | 350 | 350 | 305 | 1,420 | 1,420 | 695 | 473 | 335 | 422 | 300 |
| 18 | 394 | 449 | 355 | 380 | 300 | 1,150 | 1,360 | 653 | 488 | 323 | 374 | 300 |
| 19 | 373 | 427 | 355 | 415 | 300 | 1,010 | 1,090 | 625 | 458 | 345 | 359 | 300 |
| 20 | 365 | 434 | 360 | 440 | 305 | 943 | 957 | 608 | 425 | 361 | 353 | 308 |
| 21 | 403 | 427 | 360 | 415 | 310 | 862 | 938 | 588 | 410 | 336 | 337 | 306 |
| 22 | 435 | 410 | 360 | 400 | 310 | 802 | 926 | 566 | 435 | 318 | 328 | 356 |
| 23 | 501 | 330 | 365 | 385 | 310 | 772 | 844 | 547 | 538 | 309 | 329 | 367 |
| 24 | 548 | 452 | 365 | 370 | 310 | 742 | 748 | 539 | 496 | 311 | 336 | 348 |
| 25 | 504 | 442 | 370 | 365 | 310 | 749 | 671 | 626 | 451 | 322 | 329 | 343 |
| 26 | 489 | 414 | 370 | 360 | 310 | 799 | 615 | 792 | 438 | 344 | 334 | 360 |
| 27 | 509 | 410 | 375 | 350 | 310 | 828 | 575 | 758 | 437 | 346 | 341 | 417 |
| 28 | 507 | 396 | 380 | 340 | 310 | 853 | 547 | 674 | 440 | 389 | 326 | 416 |
| 29 | 478 | 390 | 370 | 335 | ------ | 887 | 527 | 609 | 422 | 387 | 316 | 376 |
| 30 | 450 | 380 | 330 | 330 | ------ | 873 | 514 | 550 | 409 | 356 | 320 | 360 |
| 31 | 436 | ------ | 370 | 325 | ------ | 841 | ------ | 517 | ------ | 362 | 503 | ------ |
| TOTAL | 15,820 | 16,786 | 11,055 | 11,130 | 8,875 | 25,836 | 23,112 | 26,961 | 14,540 | 11,073 | 11,266 | 10,587 |
| MEAN | 510 | 560 | 357 | 359 | 317 | 833 | 770 | 870 | 485 | 357 | 363 | 353 |
| MAX | 740 | 1,060 | 380 | 440 | 345 | 1,630 | 1,420 | 1,560 | 640 | 455 | 503 | 537 |
| MIN | 365 | 330 | 330 | 325 | 300 | 310 | 510 | 517 | 409 | 309 | 316 | 300 |
| CFSM | 1.31 | 1.44 | .92 | .92 | .81 | 2.14 | 1.98 | 2.24 | 1.25 | .92 | .93 | .91 |
| IN. | 1.51 | 1.61 | 1.06 | 1.06 | .85 | 2.47 | 2.21 | 2.58 | 1.39 | 1.06 | 1.08 | 1.01 |

CAL YR 1972 TOTAL 169,591 MEAN 463 MAX 2,290 MIN 240 CFSM [illegible].19 IN 16.22
WTR YR 1973 TOTAL 187,041 MEAN 512 MAX 1,630 MIN 300 CFSM 1.32 IN 17.89

## 04063000 Menominee River near Florence, Wis.

LOCATION.--Lat 45°57'04", long 88°11'13", in NE¼ sec.16, T.41 N., R.31 W., Michigan meridian, Iron County, on left bank 0.5 mi (0.8 km) downstream from confluence of Brule and Michigamme Rivers, 3.5 mi (5.6 km) northeast of Florence, and at mile 117 (188 km).

DRAINAGE AREA.--1,780 mi² (4,610 km²).

PERIOD OF RECORD.--January 1914 to current year. Published as "at Twin Falls near Iron *County, Mich." 1914-57.* Records published for both sites July 1950 to September 1957.

GAGE.--Water-stage recorder. Altitude of gage is 1,120 ft (341 m), from topographic map (nearest 10 ft). Prior to July 1950, headwater and tailwater gages and generation data entered hourly in daily log sheets by company employees at the Twin Falls Powerplant of Wisconsin-Michigan Power Co., 10.4 mi (16.7 km) downstream.

AVERAGE DISCHARGE.--59 years, 1,803 ft³/s (51.06 m³/s).

EXTREMES.--Current year: Maximum discharge, 10,400 ft³/s (295 m³/s) May 3 (gage height, 9.81 ft or 2.990 m); minimum, 226 ft³/s (6.40 m³/s) Dec. 5 (gage height, 1.94 ft or 0.591 m); minimum daily, 847 ft³/s (24.0 m³/s) Sept. 23.

Period of record: Maximum discharge, 19,500 ft³/s (552 m³/s) Apr. 26, 1960 (gage height, 14.15 ft or 4.313 m); minimum, 38 ft³/s (1.08 m³/s) Aug. 21, 1962; minimum gage height, 1.18 ft (0.360 m) Aug. 21, 1962, Nov. 4, 1965; minimum daily discharge, 154 ft³/s (4.36 m³/s) Aug. 9, 1925.

REMARKS.--Records excellent. Prior to July 1950 discharge determined from powerplant records computed on basis of load-discharge rating of hydroelectric units and rating for tailwater gage during periods of spill. Rating developed by Geological Survey. Flow regulated by powerplants, and by Michigamme Reservoir (capacity, 119,950 acre-ft or 148 hm³) and Peavy Pond (capacity, 33,860 acre-ft or 41.7 hm³) on Michigamme River, and by many smaller reservoirs above station.

REVISIONS (WATER YEARS).--WSP 1707: 1953(M). WSP 1911: Drainage area of former site.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4,080 | 2,370 | 2,030 | 1,980 | 1,670 | 1,860 | 4,660 | 3,880 | 2,330 | 1,940 | 1,860 | 2,050 |
| 2 | 3,540 | 2,960 | 1,670 | 2,060 | 1,760 | 2,080 | 4,880 | 6,150 | 2,440 | 2,030 | 1,860 | 1,690 |
| 3 | 3,510 | 4,240 | 1,420 | 2,080 | 1,680 | 1,660 | 4,810 | 9,140 | 2,200 | 1,770 | 2,040 | 1,520 |
| 4 | 3,040 | 4,470 | 2,040 | 1,770 | 1,680 | 1,690 | 4,780 | 9,150 | 2,050 | 1,510 | 1,830 | 1,610 |
| 5 | 2,640 | 4,370 | 1,050 | 2,290 | 1,760 | 1,900 | 4,420 | 7,440 | 2,230 | 1,430 | 1,430 | 1,680 |
| 6 | 2,990 | 4,260 | 2,110 | 1,970 | 1,740 | 2,240 | 3,860 | 6,550 | 2,220 | 1,550 | 1,680 | 2,040 |
| 7 | 3,810 | 3,840 | 2,230 | 1,730 | 1,990 | 2,270 | 3,280 | 5,450 | 2,470 | 1,330 | 1,590 | 2,060 |
| 8 | 3,620 | 3,660 | 1,940 | 2,290 | 1,760 | 2,400 | 3,170 | 7,980 | 2,240 | 1,290 | 1,550 | 2,050 |
| 9 | 3,550 | 3,800 | 2,040 | 2,160 | 1,930 | 2,420 | 3,270 | 8,910 | 2,010 | 1,550 | 1,590 | 1,630 |
| 10 | 3,450 | 3,640 | 1,050 | 2,020 | 1,970 | 2,820 | 3,100 | 9,100 | 2,310 | 1,590 | 1,780 | 1,580 |
| 11 | 3,390 | 3,940 | 2,250 | 2,080 | 1,880 | 3,770 | 2,850 | 9,090 | 2,330 | 1,600 | 2,120 | 1,550 |
| 12 | 2,920 | 4,080 | 2,010 | 1,910 | 2,020 | 4,470 | 2,770 | 9,040 | 2,140 | 1,680 | 2,260 | 1,580 |
| 13 | 2,060 | 3,550 | 2,330 | 1,420 | 1,750 | 4,410 | 2,850 | 8,700 | 2,080 | 1,990 | 1,900 | 1,460 |
| 14 | 1,960 | 3,080 | 2,230 | 1,260 | 1,880 | 4,360 | 2,770 | 6,850 | 2,050 | 1,890 | 1,750 | 1,220 |
| 15 | 1,620 | 2,730 | 2,200 | 2,080 | 1,960 | 5,200 | 2,890 | 4,950 | 2,080 | 1,490 | 1,930 | 973 |
| 16 | 2,180 | 2,450 | 2,050 | 1,730 | 1,820 | 6,080 | 4,060 | 4,410 | 1,880 | 1,600 | 1,870 | 1,060 |
| 17 | 2,340 | 2,080 | 1,830 | 1,820 | 1,360 | 5,400 | 5,510 | 4,270 | 1,530 | 1,530 | 1,870 | 1,440 |
| 18 | 1,790 | 2,190 | 2,160 | 1,810 | 1,350 | 4,570 | 6,240 | 4,000 | 1,780 | 1,510 | 2,140 | 1,440 |
| 19 | 1,730 | 2,070 | 2,140 | 1,840 | 1,790 | 4,290 | 7,200 | 3,820 | 1,720 | 1,700 | 2,220 | 1,380 |
| 20 | 1,740 | 2,140 | 2,270 | 1,940 | 1,640 | 3,970 | 6,420 | 3,770 | 1,760 | 1,930 | 2,250 | 1,270 |
| 21 | 1,950 | 2,100 | 2,110 | 1,890 | 1,740 | 3,610 | 5,740 | 3,700 | 1,910 | 1,670 | 2,030 | 1,390 |
| 22 | 2,020 | 2,270 | 2,080 | 1,800 | 1,760 | 3,470 | 5,650 | 3,630 | 1,850 | 1,760 | 1,860 | 1,060 |
| 23 | 2,720 | 2,000 | 2,140 | 1,950 | 1,770 | 3,470 | 5,670 | 2,910 | 1,950 | 1,600 | 1,620 | 847 |
| 24 | 3,050 | 2,100 | 2,200 | 1,940 | 1,860 | 3,500 | 5,300 | 2,770 | 1,610 | 1,620 | 1,670 | 1,480 |
| 25 | 2,420 | 2,200 | 1,040 | 2,000 | 1,800 | 3,460 | 4,680 | 3,160 | 2,010 | 1,650 | 1,340 | 1,480 |
| 26 | 2,120 | 2,160 | 2,230 | 2,070 | 1,820 | 3,410 | 4,670 | 3,640 | 2,060 | 1,440 | 1,260 | 1,380 |
| 27 | 2,180 | 2,330 | 2,030 | 1,930 | 1,900 | 3,620 | 4,370 | 3,270 | 1,960 | 1,710 | 1,580 | 1,490 |
| 28 | 2,140 | 2,040 | 2,060 | 1,910 | 2,060 | 4,070 | 3,580 | 3,090 | 2,180 | 1,610 | 1,610 | 1,730 |
| 29 | 1,930 | 2,180 | 2,130 | 1,880 | ------ | 4,310 | 2,840 | 2,900 | 2,040 | 1,700 | 1,600 | 1,260 |
| 30 | 2,300 | 1,630 | 1,840 | 2,030 | ------ | 4,520 | 3,000 | 2,770 | 2,120 | 2,030 | 1,580 | 1,170 |
| 31 | 2,400 | ------ | 1,970 | 1,980 | ------ | 4,710 | ------ | 2,820 | ------ | 1,870 | 1,960 | ------ |
| TOTAL | 81,190 | 86,930 | 63,280 | 59,540 | 50,100 | 109,850 | 129,210 | 167,390 | 61,460 | 51,570 | 55,550 | 44,250 |
| MEAN | 2,619 | 2,898 | 2,041 | 1,921 | 1,789 | 3,544 | 4,307 | 5,400 | 2,049 | 1,664 | 1,792 | 1,475 |
| MAX | 4,080 | 4,470 | 2,330 | 2,290 | 2,060 | 6,080 | 7,200 | 9,150 | 2,470 | 2,030 | 2,260 | 2,060 |
| MIN | 1,620 | 1,630 | 1,420 | 1,260 | 1,350 | 1,660 | 2,770 | 2,770 | 1,530 | 1,290 | 1,260 | 847 |

CAL YR 1972 TOTAL 845,790 MEAN 2,311 MAX 9,270 MIN 660
WTR YR 1973 TOTAL 960,320 MEAN 2,631 MAX 9,150 MIN 847

## STREAMS TRIBUTARY TO LAKE MICHIGAN

### 04063700 Popple River near Fence, Wis.
(Hydrologic benchmark station)

LOCATION.--Lat 45°45'49", long 88°27'47", in NW¼ sec.23, T.38 N., R.16 E., Florence County, on left bank 20 ft (6 m) upstream from bridge on U.S. Forest Service road 2159, 1.8 mi (2.9 km) downstream from Mud Creek, 2.6 mi (4.2 km) northwest of Fence, and 11.5 mi (18.5 km) upstream from mouth.

DRAINAGE AREA.--131 mi² (339 km²).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,406.16 ft (428.598 m) above mean sea level. Prior to June 18, 1964, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--10 years, 128 ft³/s (3.62 m³/s), 13.27 in/yr (337 mm/yr).

EXTREMES.--Current year: Maximum discharge, 700 ft³/s (19.8 m³/s) Mar. 18, gage height, 3.38 ft (1.030 m); minimum, 43 ft³/s (1.22 m³/s) July 24, gage height, 1.38 ft (0.421 m).

Period of record: Maximum discharge, 1,120 ft³/s (31.7 m³/s) May 2, 1972, gage height, 4.21 ft (1.283 m); minimum, 15 ft³/s (0.42 m³/s) July 19, 23, 24, 1964, gage height, 1.04 ft (0.317 m).

REMARKS.--Records good except those for winter months, which are fair. Records of chemical analysis, water temperatures, and suspended sediment loads for the water year 1973 are published in Part 2 of this report.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 15-17, 19, 22, 23, 25-27, 29, 30, Dec. 5-10, Dec. 13 to Mar. 15.)

| | | | |
|---|---|---|---|
| 1.0 | 17 | 2.6 | 360 |
| 1.4 | 50 | 3.0 | 520 |
| 1.8 | 120 | 3.7 | 860 |
| 2.2 | 230 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 428 | 128 | 74 | 50 | 66 | 76 | 412 | 305 | 242 | 108 | 120 | 138 |
| 2 | 396 | 179 | 72 | 49 | 68 | 78 | 436 | 460 | 206 | 98 | 110 | 135 |
| 3 | 360 | 269 | 70 | 48 | 70 | 82 | 448 | 570 | 185 | 88 | 98 | 194 |
| 4 | 332 | 296 | 66 | 48 | 70 | 84 | 448 | 620 | 215 | 74 | 77 | 200 |
| 5 | 302 | 299 | 64 | 47 | 70 | 82 | 424 | 610 | 230 | 70 | 66 | 160 |
| 6 | 281 | 296 | 62 | 47 | 72 | 80 | 392 | 565 | 215 | 65 | 60 | 122 |
| 7 | 260 | 296 | 62 | 47 | 74 | 90 | 368 | 536 | 197 | 62 | 56 | 102 |
| 8 | 239 | 293 | 62 | 47 | 78 | 250 | 328 | 575 | 209 | 56 | 58 | 86 |
| 9 | 218 | 281 | 60 | 47 | 84 | 230 | 305 | 580 | 260 | 53 | 62 | 74 |
| 10 | 197 | 263 | 60 | 48 | 88 | 210 | 275 | 580 | 245 | 66 | 59 | 66 |
| 11 | 179 | 245 | 59 | 48 | 92 | 290 | 254 | 552 | 224 | 68 | 56 | 62 |
| 12 | 162 | 224 | 58 | 48 | 92 | 320 | 236 | 516 | 200 | 80 | 52 | 53 |
| 13 | 142 | 203 | 58 | 48 | 92 | 390 | 215 | 472 | 162 | 102 | 53 | 58 |
| 14 | 138 | 179 | 58 | 48 | 88 | 420 | 200 | 428 | 140 | 92 | 65 | 48 |
| 15 | 130 | 150 | 58 | 48 | 82 | 500 | 233 | 376 | 125 | 77 | 66 | 58 |
| 16 | 120 | 140 | 56 | 48 | 78 | 620 | 404 | 340 | 125 | 70 | 68 | 47 |
| 17 | 116 | 120 | 56 | 49 | 76 | 635 | 520 | 308 | 160 | 62 | 68 | 47 |
| 18 | 104 | 112 | 56 | 49 | 76 | 665 | 585 | 278 | 194 | 58 | 74 | 46 |
| 19 | 92 | 110 | 56 | 50 | 78 | 660 | 605 | 254 | 209 | 54 | 82 | 50 |
| 20 | 86 | 102 | 56 | 50 | 66 | 635 | 600 | 230 | 206 | 52 | 88 | 47 |
| 21 | 102 | 98 | 56 | 50 | 64 | 580 | 605 | 212 | 182 | 48 | 82 | 48 |
| 22 | 116 | 94 | 56 | 50 | 66 | 472 | 600 | 191 | 160 | 47 | 74 | 62 |
| 23 | 162 | 92 | 56 | 50 | 68 | 440 | 560 | 170 | 179 | 44 | 72 | 72 |
| 24 | 197 | 88 | 56 | 52 | 70 | 412 | 500 | 158 | 206 | 44 | 74 | 72 |
| 25 | 203 | 86 | 54 | 52 | 74 | 396 | 460 | 224 | 168 | 46 | 71 | 74 |
| 26 | 197 | 84 | 52 | 54 | 76 | 380 | 408 | 311 | 130 | 46 | 71 | 77 |
| 27 | 188 | 82 | 52 | 56 | 76 | 360 | 356 | 356 | 122 | 44 | 68 | 84 |
| 28 | 173 | 80 | 52 | 58 | 76 | 300 | 313 | 368 | 118 | 53 | 64 | 82 |
| 29 | 162 | 76 | 50 | 58 | ------ | 300 | 284 | 364 | 112 | 59 | 59 | 71 |
| 30 | 145 | 74 | 50 | 60 | ------ | 400 | 245 | 328 | 108 | 92 | 60 | 70 |
| 31 | 135 | ------ | 50 | 62 | ------ | 404 | ------ | 284 | ------ | 125 | 108 | ------ |
| TOTAL | 6,062 | 5,639 | 1,807 | 1,566 | 2,130 | 11,037 | 12,027 | 12,121 | 5,442 | 2,079 | 2,233 | 2,489 |
| MEAN | 196 | 188 | 58.3 | 50.5 | 76.1 | 356 | 401 | 391 | 181 | 67.1 | 72.0 | 83.0 |
| MAX | 428 | 299 | 74 | 62 | 92 | 665 | 605 | 620 | 260 | 125 | 120 | 200 |
| MIN | 86 | 74 | 50 | 47 | 64 | 76 | 200 | 158 | 108 | 44 | 52 | 46 |
| CFSM | 1.50 | 1.28 | .45 | .39 | .58 | 2.72 | 3.06 | 2.98 | 1.38 | .51 | .55 | .63 |
| IN. | 1.72 | 1.43 | .51 | .44 | .60 | 3.13 | 3.42 | 3.44 | 1.55 | .59 | .63 | .71 |

CAL YR 1972 TOTAL 43,625 MEAN 119 MAX 820 MIN 28 CFSM .91 IN 12.39
WTR YR 1973 TOTAL 64,032 MEAN 175 MAX 665 MIN 44 CFSM 1.34 IN 18.18

PEAK DISCHARGE (BASE, 300 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 3-18 | 1000 | 3.33 | 700 | 5- 4 | 1800 | 3.22 | 620 |
| 4- 4 | 0600 | 2.77 | 448 | 5-28 | 1800 | 2.64 | 376 |
| 4-22 | 0700 | 3.15 | 610 | | | | |

## 04064500 Pine River below Pine River Powerplant, near Florence, Wis.

LOCATION.--Lat 45°50'16", long 88°13'31", in SW¼ sec.22, T.39 N., R.18 E., Florence County, on left bank 60 ft (18 m) upstream from bridge on County Trunk N, 1.9 mi (3.1 km) downstream from powerplant of Wisconsin-Michigan Power Co., 6.0 mi (9.7 km) south of Florence, and 7.0 mi (11.3 km) downstream from Popple River.

DRAINAGE AREA.--528 $mi^2$ (1,368 $km^2$).

PERIOD OF RECORD.--October 1923 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,098.84 ft (334.926 m) above mean sea level. Prior to October 1968, record obtained from Pine River powerplant 1.9 mi (3.1 km) upstream with a drainage area of 528 $mi^2$ (1,368 $km^2$).

AVERAGE DISCHARGE.--50 years, 431 $ft^3/s$ (12.21 $m^3/s$) 11.09 in/yr (282 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,300 $ft^3/s$ (65.1 $m^3/s$) May 8, gage height, 6.45 ft (1.966 m); maximum gage height, 7.81 ft (2.380 m) Mar. 23, backwater from ice; minimum daily discharge, 192 $ft^3/s$ (5.44 $m^3/s$) Sept. 15.
Period of record: Maximum daily discharge, 4,380 $ft^3/s$ (124 $m^3/s$) Apr. 9, 1929; no flow at times during 1924, 1926-27, 1930-31, 1933, 1940.

REMARKS.--Records good except those for winter months, which are fair. Flow regulated by Pine River powerplant 1.9 mi (3.1 km) upstream; pondage is small and monthly discharge is near normal.

REVISIONS.--WSP 1237: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 28 to Mar. 23.)

| | | | |
|---|---|---|---|
| 1.8 | 128 | 4.5 | 1,130 |
| 2.5 | 305 | 5.5 | 1,690 |
| 3.5 | 665 | 6.5 | 2,330 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,200 | 478 | 340 | 350 | 330 | 310 | 1,250 | 960 | 800 | 470 | 523 | 482 |
| 2 | 1,100 | 688 | 260 | 390 | 340 | 290 | 1,470 | 1,500 | 720 | 456 | 417 | 515 |
| 3 | 960 | 1,100 | 250 | 420 | 330 | 300 | 1,460 | 2,100 | 680 | 384 | 338 | 577 |
| 4 | 840 | 1,140 | 240 | 360 | 330 | 320 | 1,520 | 2,230 | 860 | 380 | 317 | 683 |
| 5 | 900 | 1,110 | 240 | 330 | 330 | 330 | 1,360 | 2,080 | 900 | 350 | 316 | 595 |
| 6 | 940 | 1,050 | 300 | 330 | 330 | 350 | 1,240 | 1,840 | 740 | 311 | 309 | 462 |
| 7 | 880 | 1,040 | 280 | 340 | 310 | 640 | 1,140 | 1,780 | 780 | 306 | 263 | 386 |
| 8 | 800 | 994 | 260 | 360 | 270 | 1,000 | 1,000 | 2,090 | 840 | 304 | 272 | 315 |
| 9 | 720 | 960 | 300 | 320 | 280 | 920 | 900 | 2,160 | 940 | 338 | 302 | 352 |
| 10 | 648 | 900 | 330 | 290 | 260 | 1,000 | 840 | 2,210 | 900 | 364 | 311 | 271 |
| 11 | 647 | 800 | 330 | 340 | 290 | 1,300 | 740 | 2,150 | 800 | 418 | 208 | 299 |
| 12 | 623 | 720 | 330 | 320 | 300 | 1,500 | 720 | 2,100 | 700 | 449 | 337 | 279 |
| 13 | 575 | 640 | 310 | 310 | 270 | 1,600 | 660 | 1,900 | 640 | 506 | 245 | 253 |
| 14 | 555 | 600 | 300 | 300 | 270 | 1,900 | 680 | 1,600 | 520 | 541 | 313 | 204 |
| 15 | 521 | 520 | 310 | 290 | 270 | 2,100 | 832 | 1,380 | 507 | 462 | 264 | 192 |
| 16 | 503 | 470 | 320 | 300 | 300 | 2,100 | 900 | 1,210 | 511 | 442 | 289 | 244 |
| 17 | 467 | 500 | 310 | 340 | 270 | 1,900 | 1,500 | 1,100 | 540 | 334 | 378 | 278 |
| 18 | 410 | 500 | 330 | 370 | 270 | 1,800 | 2,040 | 1,000 | 600 | 280 | 304 | 223 |
| 19 | 387 | 460 | 310 | 450 | 270 | 1,700 | 1,990 | 920 | 700 | 329 | 308 | 223 |
| 20 | 330 | 450 | 290 | 490 | 270 | 1,600 | 1,890 | 820 | 620 | 284 | 359 | 259 |
| 21 | 411 | 410 | 320 | 420 | 270 | 1,500 | 1,880 | 780 | 580 | 258 | 312 | 221 |
| 22 | 474 | 330 | 310 | 380 | 270 | 1,400 | 1,860 | 720 | 580 | 293 | 294 | 266 |
| 23 | 584 | 340 | 330 | 360 | 270 | 1,300 | 1,810 | 700 | 600 | 261 | 247 | 303 |
| 24 | 689 | 390 | 320 | 380 | 270 | 1,220 | 1,560 | 640 | 640 | 261 | 276 | 308 |
| 25 | 625 | 460 | 300 | 400 | 270 | 1,150 | 1,400 | 760 | 640 | 260 | 248 | 351 |
| 26 | 629 | 490 | 310 | 360 | 270 | 1,160 | 1,250 | 1,000 | 600 | 307 | 279 | 323 |
| 27 | 627 | 450 | 330 | 360 | 290 | 1,210 | 1,000 | 1,200 | 560 | 329 | 335 | 397 |
| 28 | 625 | 350 | 330 | 350 | 270 | 1,200 | 960 | 1,300 | 520 | 322 | 275 | 364 |
| 29 | 619 | 310 | 330 | 340 | ------ | 1,210 | 900 | 1,200 | 573 | 320 | 220 | 415 |
| 30 | 576 | 320 | 330 | 330 | ------ | 1,290 | 820 | 1,000 | 470 | 366 | 272 | 312 |
| 31 | 536 | ------ | 330 | 330 | ------ | 1,240 | ------ | 940 | ------ | 450 | 431 | ------ |
| TOTAL | 20,401 | 18,970 | 9,530 | 11,010 | 8,070 | 36,840 | 37,572 | 43,370 | 20,061 | 11,135 | 9,562 | 10,352 |
| MEAN | 658 | 632 | 307 | 355 | 288 | 1,188 | 1,252 | 1,399 | 669 | 359 | 308 | 345 |
| MAX | 1,200 | 1,140 | 340 | 490 | 340 | 2,100 | 2,040 | 2,230 | 940 | 541 | 523 | 683 |
| MIN | 330 | 310 | 240 | 290 | 260 | 290 | 660 | 640 | 470 | 258 | 208 | 192 |
| CFSM | 1.25 | 1.20 | .58 | .67 | .55 | 2.25 | 2.37 | 2.65 | 1.27 | .68 | .58 | .65 |
| IN. | 1.44 | 1.34 | .67 | .78 | .57 | 2.60 | 2.65 | 3.06 | 1.41 | .78 | .67 | .73 |

CAL YR 1972 TOTAL 199,827 MEAN 546 MAX 3,680 MIN 150 CFSM 1.03 IN 14.08
WTR YR 1973 TOTAL 236,873 MEAN 649 MAX 2,230 MIN 192 CFSM 1.23 IN 16.69

NOTE.--No gage-height record Nov. 9 to Dec. 8.

## 04066000 Menominee River near Pembine, Wis.

**LOCATION.**--Lat 45°35'24", long 87°46'34", in sec.21, T.37 N., R.28 W., Michigan meridian, Menominee County, Mich., on left bank 0.1 mi (0.2 km) upstream from Pemene Creek, 4.0 mi (6.4 km) west of Nathan, Mich., 15 mi (24 km) southeast of Pembine, and at mile 65.3 (105.1 km).

**DRAINAGE AREA.**--3,240 mi² (8,390 km²), approximately.

**PERIOD OF RECORD.**--October 1949 to current year. Monthly discharge only for some periods, published in WSP 1307.

**GAGE.**--Water-stage recorder. Altitude of gage is 745 ft (227 m), from river-profile map.

**AVERAGE DISCHARGE.**--24 years, 3,018 ft³/s (85.47 m³/s).

**EXTREMES.**--Current year: Maximum daily discharge, 16,000 ft³/s (453 m³/s) May 10; minimum, 1,370 ft³/s (38.8 m³/s) Sept. 17, 18, gage height, 7.15 ft (2.179 m).

Period of record: Maximum discharge, 26,900 ft³/s (762 m³/s) May 8, 1960, gage height, 13.90 ft (4.237 m); minimum, 694 ft³/s (19.7 m³/s) Sept. 3, 1969, gage height, 1.66 ft (0.506 m).

**REMARKS.**--Records good except those for winter months, which are poor. Flow regulated by powerplants and by Michigamme Reservoir, capacity, 119,950 acre-ft (148 hm³), and Peavy Pond, capacity, 33,860 acre-ft (41.7 hm³), on the Michigamme River, and by many smaller reservoirs above station.

**REVISIONS (WATER YEARS).**--WSP 1277: 1952.

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 12-29, Jan. 2, 3, 9-16, Jan. 30 to Feb. 1, Feb. 5 to Mar. 4, Mar. 8, 9, 12-22.)

| Oct. 1 to Nov. 2 | | Nov. 3 to Sept. 30 | | | |
|---|---|---|---|---|---|
| 3.0 | 2,060 | 7.5 | 1,420 | 11.0 | 6,820 |
| 5.0 | 4,800 | 9.0 | 2,900 | 12.0 | 9,820 |
| 7.0 | 8,340 | 10.0 | 4,500 | 14.0 | 18,300 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7,480 | 3,440 | 2,180 | 2,440 | 3,000 | 2,300 | 8,330 | 7,600 | 3,970 | 2,930 | 3,100 | 2,780 |
| 2 | 6,600 | 3,690 | 2,270 | 2,500 | 2,730 | 2,600 | 8,630 | 9,800 | 3,810 | 2,670 | 3,000 | 2,710 |
| 3 | 5,860 | 5,020 | 2,150 | 2,600 | 2,490 | 2,500 | 9,630 | 13,000 | 3,330 | 2,530 | 2,800 | 2,620 |
| 4 | 5,460 | 6,900 | 2,260 | 2,650 | 2,380 | 2,300 | 10,100 | 14,000 | 3,390 | 1,950 | 2,400 | 2,820 |
| 5 | 5,230 | 7,260 | 2,280 | 2,570 | 2,300 | 2,420 | 9,800 | 13,000 | 3,850 | 1,990 | 2,300 | 2,940 |
| 6 | 5,810 | 6,210 | 2,120 | 2,780 | 2,400 | 2,810 | 8,210 | 12,000 | 4,040 | 2,090 | 2,200 | 2,910 |
| 7 | 5,630 | 6,360 | 1,980 | 2,610 | 2,600 | 3,400 | 7,350 | 11,000 | 3,960 | 1,840 | 2,100 | 2,930 |
| 8 | 5,700 | 5,500 | 3,040 | 2,690 | 2,400 | 4,300 | 6,530 | 13,000 | 3,740 | 1,750 | 2,200 | 2,890 |
| 9 | 4,980 | 5,800 | 2,690 | 2,500 | 2,400 | 5,400 | 6,140 | 15,000 | 3,990 | 1,810 | 2,200 | 2,890 |
| 10 | 4,940 | 5,440 | 2,140 | 2,600 | 2,300 | 7,160 | 6,570 | 16,000 | 4,060 | 2,020 | 2,300 | 2,410 |
| 11 | 4,500 | 5,330 | 2,340 | 2,500 | 2,200 | 8,650 | 6,010 | 15,000 | 3,770 | 1,990 | 2,700 | 2,130 |
| 12 | 4,580 | 5,220 | 2,300 | 2,400 | 2,300 | 10,000 | 5,490 | 14,000 | 3,530 | 2,100 | 2,600 | 2,190 |
| 13 | 3,950 | 4,670 | 2,700 | 2,200 | 2,400 | 13,000 | 5,020 | 13,000 | 3,230 | 2,350 | 2,500 | 2,140 |
| 14 | 3,300 | 4,330 | 2,700 | 2,100 | 2,400 | 14,000 | 4,750 | 11,000 | 2,980 | 2,540 | 2,500 | 2,020 |
| 15 | 2,850 | 3,750 | 2,300 | 2,200 | 2,300 | 15,000 | 4,430 | 8,400 | 2,820 | 2,290 | 2,400 | 1,870 |
| 16 | 2,790 | 3,510 | 2,400 | 2,300 | 2,200 | 14,000 | 6,440 | 7,200 | 2,670 | 2,230 | 2,300 | 1,590 |
| 17 | 3,260 | 2,920 | 2,300 | 2,570 | 2,200 | 13,000 | 11,800 | 7,000 | 2,610 | 2,100 | 2,900 | 1,480 |
| 18 | 2,800 | 2,740 | 2,500 | 2,320 | 2,100 | 12,000 | 12,000 | 6,800 | 2,690 | 1,900 | 3,100 | 1,790 |
| 19 | 2,620 | 2,720 | 2,500 | 2,760 | 2,000 | 10,000 | 11,200 | 6,200 | 2,850 | 1,700 | 3,400 | 1,930 |
| 20 | 2,710 | 2,810 | 2,300 | 3,100 | 2,100 | 8,400 | 11,200 | 6,200 | 2,820 | 2,100 | 3,300 | 1,870 |
| 21 | 2,470 | 2,780 | 2,700 | 3,480 | 2,200 | 7,600 | 11,200 | 6,200 | 2,840 | 2,200 | 3,300 | 1,940 |
| 22 | 2,800 | 2,640 | 2,700 | 3,050 | 2,200 | 6,890 | 10,700 | 6,000 | 2,700 | 2,000 | 2,600 | 2,040 |
| 23 | 3,400 | 2,730 | 2,100 | 3,270 | 2,200 | 6,540 | 10,100 | 5,200 | 2,780 | 2,100 | 2,700 | 1,720 |
| 24 | 4,500 | 2,650 | 2,700 | 3,050 | 2,200 | 6,740 | 10,100 | 5,000 | 2,730 | 2,200 | 2,550 | 1,660 |
| 25 | 4,660 | 2,600 | 2,300 | 2,930 | 2,200 | 6,420 | 8,410 | 5,400 | 2,880 | 2,100 | 2,250 | 2,090 |
| 26 | 3,740 | 2,780 | 2,000 | 3,030 | 2,200 | 6,470 | 7,170 | 7,000 | 2,890 | 2,100 | 2,500 | 2,720 |
| 27 | 3,900 | 2,750 | 2,700 | 2,710 | 2,200 | 6,550 | 7,160 | 6,800 | 2,820 | 2,100 | 1,790 | 2,360 |
| 28 | 3,480 | 2,800 | 2,500 | 2,710 | 2,500 | 7,240 | 6,340 | 7,400 | 2,900 | 2,600 | 1,990 | 2,230 |
| 29 | 3,330 | 2,810 | 2,500 | 3,170 | ------ | 7,780 | 4,860 | 6,200 | 2,910 | 2,800 | 2,220 | 2,360 |
| 30 | 3,540 | 2,440 | 2,300 | 3,000 | ------ | 7,760 | 5,400 | 5,000 | 2,940 | 3,000 | 2,200 | 2,190 |
| 31 | 3,480 | ------ | 2,550 | 3,000 | ------ | 8,720 | ------ | 4,870 | ------ | 3,100 | 2,360 | ------ |
| TOTAL | 130,410 | 120,440 | 78,680 | 83,900 | 65,160 | 241,280 | 241,070 | 284,270 | 96,520 | 69,180 | 78,760 | 68,220 |
| MEAN | 4,207 | 4,015 | 2,539 | 2,706 | 2,325 | 7,781 | 8,036 | 9,170 | 3,217 | 2,232 | 2,541 | 2,274 |
| MAX | 7,460 | 7,260 | 3,040 | 3,480 | 3,000 | 15,000 | 12,000 | 16,000 | 4,060 | 3,100 | 3,400 | 2,940 |
| MIN | 2,470 | 2,440 | 1,980 | 2,100 | 2,000 | 2,300 | 4,430 | 4,870 | 2,610 | 1,700 | 1,790 | 1,480 |

CAL YR 1972 TOTAL 1,345,030 MEAN 3,675 MAX 18,000 MIN 1,390
WTR YR 1973 TOTAL 1,547,230 MEAN 4,239 MAX 16,000 MIN 1,480

## 04067000 Menominee River below Koss, Mich.

LOCATION.--Lat 45°21'16", long 87°38'55", in sec.9, T.34 N., R.27 W., Michigan meridian, Menominee County, on left bank at powerplant of Wisconsin Public Service Corp., 0.5 mi (0.8 km) upstream from Little Cedar River, 3.6 mi (5.8 km) southeast of Koss, and at mile 24.7 (39.7 km).

DRAINAGE AREA.--3,790 mi² (9,820 km²), approximately.

PERIOD OF RECORD.--July 1907 to March 1909 (published as "at Koss"), July 1913 to current year.

GAGE.--Headwater and tailwater gages and generation data entered hourly in daily log sheet by company employees. Prior to June 1913, chain gage on railroad bridge 4 mi (6.4 km) upstream.

AVERAGE DISCHARGE.--61 years (1907-8, 1913-73), 3,154 ft³/s (89.32 m³/s).

EXTREMES.--Current year: Maximum daily discharge, 17,600 ft³/s (498 m³/s) May 11; minimum daily, 1,690 ft³/s (47.9 m³/s) Sept. 18.

Period of record: Maximum daily discharge, 33,000 ft³/s (935 m³/s) May 10, 1960; minimum daily, 162 ft³/s (4.59 m³/s) Sept. 15, 1931.

REMARKS.--Records fair. Daily discharge computed on basis of average daily load and load-discharge rating of combined hydroelectric units. Flow regulated by powerplants, and by Michigamme Reservoir, capacity, 119,950 acre-ft (148 hm³), and Peavy Pond, capacity, 33,860 acre-ft (41.7 hm³) on Michigamme River, and by many smaller reservoirs above station.

COOPERATION.--Records of daily discharge furnished by Wisconsin Public Service Corp. since 1913.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7,680 | 4,000 | 2,710 | 3,080 | 3,360 | 2,780 | 8,790 | 5,720 | 5,130 | 3,360 | 3,360 | 2,690 |
| 2 | 7,680 | 5,250 | 1,700 | 2,760 | 3,290 | 2,580 | 8,600 | 7,470 | 4,950 | 3,360 | 3,360 | 2,960 |
| 3 | 7,300 | 5,330 | 1,950 | 3,360 | 3,100 | 2,880 | 8,620 | 11,000 | 4,950 | 3,240 | 3,360 | 2,710 |
| 4 | 6,570 | 6,350 | 2,020 | 2,850 | 2,830 | 2,810 | 9,010 | 14,200 | 3,950 | 2,980 | 3,120 | 2,680 |
| 5 | 6,100 | 7,550 | 2,590 | 3,120 | 2,500 | 2,560 | 9,680 | 15,700 | 4,330 | 2,660 | 2,620 | 3,220 |
| 6 | 5,420 | 6,280 | 2,450 | 2,940 | 2,620 | 2,640 | 8,900 | 14,300 | 4,590 | 2,300 | 2,590 | 3,480 |
| 7 | 5,140 | 7,190 | 2,500 | 2,760 | 2,690 | 3,080 | 8,690 | 13,100 | 4,470 | 2,500 | 2,430 | 3,130 |
| 8 | 5,860 | 7,330 | 2,230 | 2,570 | 2,700 | 4,050 | 6,800 | 12,000 | 4,470 | 2,220 | 2,250 | 3,360 |
| 9 | 6,100 | 7,080 | 2,860 | 2,670 | 2,650 | 5,130 | 6,610 | 13,800 | 4,350 | 2,070 | 2,480 | 2,470 |
| 10 | 5,600 | 7,040 | 2,880 | 2,560 | 2,640 | 6,040 | 6,600 | 16,100 | 4,820 | 2,290 | 2,460 | 2,970 |
| 11 | 5,630 | 6,930 | 2,510 | 2,820 | 2,590 | 7,310 | 6,560 | 17,600 | 4,480 | 2,500 | 2,480 | 2,360 |
| 12 | 5,410 | 6,840 | 2,590 | 2,760 | 2,400 | 8,920 | 5,560 | 17,000 | 4,800 | 2,520 | 2,940 | 2,100 |
| 13 | 5,140 | 6,840 | 2,890 | 2,660 | 2,590 | 11,400 | 5,370 | 16,300 | 4,030 | 2,680 | 3,000 | 2,420 |
| 14 | 4,270 | 6,360 | 3,000 | 2,500 | 2,700 | 14,000 | 5,190 | 15,300 | 3,400 | 3,080 | 2,770 | 2,240 |
| 15 | 2,880 | 4,500 | 3,000 | 2,210 | 2,680 | 15,200 | 4,900 | 13,800 | 3,420 | 2,700 | 2,720 | 2,240 |
| 16 | 3,000 | 4,700 | 2,880 | 2,380 | 2,590 | 16,100 | 5,870 | 9,360 | 3,170 | 2,690 | 2,730 | 1,730 |
| 17 | 2,880 | 3,690 | 2,700 | 2,500 | 2,470 | 15,700 | 8,150 | 8,080 | 3,360 | 2,560 | 2,500 | 1,730 |
| 18 | 3,300 | 3,360 | 2,580 | 2,610 | 2,470 | 15,400 | 10,700 | 7,730 | 3,360 | 2,350 | 3,240 | 1,690 |
| 19 | 2,880 | 3,300 | 2,800 | 2,930 | 2,300 | 13,400 | 11,600 | 7,640 | 3,410 | 2,060 | 3,360 | 1,770 |
| 20 | 2,460 | 3,360 | 2,890 | 3,120 | 2,280 | 10,500 | 12,800 | 6,800 | 3,430 | 1,900 | 3,780 | 2,070 |
| 21 | 2,500 | 3,300 | 3,020 | 3,200 | 2,300 | 9,160 | 12,600 | 6,930 | 3,360 | 2,380 | 3,720 | 1,940 |
| 22 | 2,960 | 3,490 | 3,050 | 3,370 | 2,450 | 8,700 | 13,100 | 6,940 | 3,720 | 2,500 | 3,660 | 2,190 |
| 23 | 3,120 | 3,100 | 3,010 | 3,730 | 2,500 | 7,900 | 12,200 | 6,970 | 3,360 | 2,280 | 2,920 | 2,340 |
| 24 | 4,970 | 3,150 | 3,100 | 3,960 | 2,500 | 7,360 | 11,400 | 5,740 | 3,240 | 2,320 | 2,900 | 1,760 |
| 25 | 5,300 | 3,020 | 3,100 | 3,600 | 2,500 | 7,120 | 10,400 | 5,440 | 3,360 | 2,500 | 2,900 | 1,980 |
| 26 | 5,430 | 3,120 | 2,820 | 3,360 | 2,500 | 7,120 | 8,740 | 5,620 | 3,720 | 2,420 | 2,920 | 2,350 |
| 27 | 4,820 | 3,370 | 2,820 | 3,510 | 2,480 | 7,260 | 8,790 | 7,750 | 3,720 | 2,350 | 2,480 | 3,000 |
| 28 | 4,620 | 3,230 | 3,000 | 3,480 | 2,460 | 7,150 | 7,670 | 7,730 | 3,480 | 2,350 | 2,980 | 2,640 |
| 29 | 3,480 | 3,720 | 2,980 | 3,360 | ------ | 7,200 | 5,260 | 8,140 | 3,360 | 2,750 | 1,900 | 2,440 |
| 30 | 3,760 | 3,120 | 2,880 | 3,360 | ------ | 7,340 | 5,420 | 6,840 | 3,480 | 3,000 | 1,980 | 2,400 |
| 31 | 4,090 | ------ | 3,120 | 3,290 | ------ | 8,380 | ------ | 6,090 | ------ | 3,240 | 2,020 | ------ |
| TOTAL | 146,350 | 145,900 | 84,530 | 93,300 | 72,980 | 247,170 | 254,580 | 317,190 | 117,670 | 80,110 | 87,930 | 73,060 |
| MEAN | 4,721 | 4,863 | 2,727 | 3,010 | 2,606 | 7,973 | 8,486 | 10,230 | 3,922 | 2,584 | 2,836 | 2,435 |
| MAX | 7,680 | 7,550 | 3,120 | 3,960 | 3,360 | 16,100 | 13,100 | 17,600 | 5,130 | 3,360 | 3,780 | 3,480 |
| MIN | 2,460 | 3,020 | 1,700 | 2,210 | 2,200 | 2,560 | 4,900 | 5,440 | 3,170 | 1,900 | 1,900 | 1,690 |

CAL YR 1972 TOTAL 1,447,740 MEAN 3,956 MAX 18,700 MIN 1,360
WTR YR 1973 TOTAL 1,720,770 MEAN 4,714 MAX 17,600 MIN 1,690

## 04069500 Peshtigo River at Peshtigo, Wis.

**LOCATION.**--Lat 45°02'49", long 87°44'40", in NE¼ sec.30, T.30 N., R.23 E., Marinette County, on left bank 75 ft (23 m) downstream from Chicago and Northwestern Railway bridge, 0.5 mi (0.8 km) downstream from Wisconsin Public Service Corp. powerplant at Peshtigo, and 11.5 mi (18.5 km) upstream from mouth.

**DRAINAGE AREA.**--1,124 mi² (2,911 km²).

**PERIOD OF RECORD.**--June 1953 to current year.

**GAGE.**--Water-stage recorder. Datum of gage is 584.64 ft (178.198 m) above mean sea level.

**AVERAGE DISCHARGE.**--20 years, 922 ft³/s (26.11 m³/s), 11.14 in/year (283 mm/yr).

**EXTREMES.**--Current year: Maximum discharge, 7,550 ft³/s (214 m³/s) May 30, gage height, 10.79 ft (3.289 m); minimum, 110 ft³/s (3.12 m³/s) Dec. 11, gage height, 1.28 ft (0.390 m); minimum daily, 399 ft³/s (11.3 m³/s) Dec. 2.

Period of record: Maximum discharge, 9,790 ft³/s (277 m³/s) May 9, 1960, gage height, 11.59 ft (3.533 m), from rating curve extended above 5,000 ft³/s (142 m³/s) on basis of computation of peak flow through dam gates; minimum, 17 ft³/s (0.48 m³/s) Nov. 29, 1966, gage height, 1.00 ft (0.305 m); minimum daily, 84 ft³/s (2.38 m³/s) Aug. 5, 1957.

**REMARKS.**--Records good except those for winter months, which are fair. Diurnal fluctuation caused by powerplants upstream.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Oct. 1 to Nov. 26, Apr. 18-24, Sept. 22-30; stage-discharge relation affected by ice Nov. 28 to Dec. 1, Dec. 3-9, Dec. 11-20, Dec. 31 to Mar. 5.)

| | | | |
|---|---|---|---|
| 1.9 | 292 | 5.0 | 1,990 |
| 2.5 | 515 | 7.0 | 3,590 |
| 3.5 | 1,000 | 9.0 | 5,400 |
| | | 11.0 | 7,880 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,370 | 925 | 470 | 780 | 800 | 490 | 2,160 | 1,730 | 4,770 | 1,060 | 802 | 515 |
| 2 | 2,370 | 1,050 | 399 | 800 | 820 | 520 | 2,410 | 2,940 | 4,090 | 1,060 | 646 | 689 |
| 3 | 2,260 | 1,580 | 420 | 760 | 820 | 600 | 2,730 | 4,060 | 3,490 | 991 | 676 | 891 |
| 4 | 2,220 | 1,600 | 450 | 720 | 780 | 680 | 2,730 | 4,430 | 3,070 | 932 | 769 | 1,370 |
| 5 | 1,990 | 1,740 | 480 | 720 | 780 | 780 | 3,010 | 4,610 | 2,700 | 771 | 649 | 1,430 |
| 6 | 1,460 | 1,770 | 520 | 700 | 800 | 1,070 | 3,210 | 4,540 | 2,840 | 746 | 596 | 1,180 |
| 7 | 1,420 | 1,760 | 600 | 700 | 780 | 1,700 | 2,950 | 4,360 | 2,630 | 710 | 545 | 1,160 |
| 8 | 1,210 | 1,930 | 580 | 680 | 760 | 3,400 | 2,620 | 4,900 | 2,370 | 857 | 564 | 640 |
| 9 | 878 | 1,840 | 540 | 680 | 680 | 3,700 | 2,570 | 5,790 | 2,210 | 581 | 741 | 823 |
| 10 | 938 | 1,520 | 501 | 660 | 620 | 4,100 | 2,430 | 5,720 | 1,880 | 637 | 777 | 695 |
| 11 | 1,010 | 1,460 | 580 | 660 | 540 | 5,000 | 2,210 | 5,450 | 2,200 | 697 | 510 | 846 |
| 12 | 1,030 | 1,360 | 660 | 640 | 540 | 5,940 | 1,970 | 4,990 | 1,780 | 644 | 465 | 736 |
| 13 | 823 | 1,070 | 660 | 620 | 540 | 6,160 | 1,860 | 4,410 | 1,850 | 726 | 561 | 670 |
| 14 | 978 | 1,160 | 720 | 620 | 520 | 5,520 | 1,850 | 3,920 | 1,520 | 909 | 692 | 753 |
| 15 | 720 | 1,060 | 680 | 600 | 520 | 5,840 | 2,800 | 3,100 | 1,520 | 709 | 658 | 551 |
| 16 | 667 | 1,040 | 640 | 620 | 500 | 6,100 | 3,800 | 2,790 | 1,020 | 639 | 676 | 587 |
| 17 | 770 | 1,010 | 600 | 640 | 520 | 6,040 | 3,950 | 2,390 | 1,140 | 721 | 742 | 544 |
| 18 | 646 | 838 | 600 | 700 | 450 | 5,780 | 4,340 | 2,040 | 1,350 | 681 | 992 | 532 |
| 19 | 689 | 735 | 640 | 800 | 450 | 5,250 | 4,850 | 2,060 | 1,260 | 608 | 1,450 | 632 |
| 20 | 771 | 805 | 660 | 960 | 480 | 4,490 | 4,750 | 1,900 | 1,240 | 552 | 1,180 | 583 |
| 21 | 804 | 725 | 648 | 1,600 | 520 | 3,570 | 4,990 | 2,050 | 1,210 | 625 | 1,420 | 570 |
| 22 | 857 | 772 | 758 | 1,100 | 500 | 3,170 | 4,720 | 1,810 | 1,060 | 466 | 1,460 | 637 |
| 23 | 842 | 645 | 702 | 1,100 | 460 | 3,050 | 4,910 | 1,580 | 1,220 | 423 | 1,140 | 888 |
| 24 | 1,430 | 527 | 613 | 1,000 | 440 | 2,950 | 3,830 | 1,610 | 1,440 | 515 | 859 | 850 |
| 25 | 1,560 | 561 | 607 | 1,000 | 440 | 2,730 | 3,380 | 1,860 | 1,620 | 556 | 901 | 665 |
| 26 | 1,450 | 541 | 629 | 920 | 440 | 2,510 | 3,210 | 2,580 | 1,360 | 629 | 879 | 1,240 |
| 27 | 1,360 | 529 | 609 | 880 | 440 | 2,450 | 2,730 | 2,990 | 1,370 | 663 | 937 | 1,070 |
| 28 | 1,380 | 760 | 699 | 860 | 460 | 2,290 | 2,120 | 4,920 | 1,290 | 573 | 946 | 965 |
| 29 | 1,270 | 640 | 709 | 880 | ------ | 1,970 | 1,770 | 6,930 | 1,290 | 565 | 827 | 825 |
| 30 | 1,140 | 560 | 658 | 820 | ------ | 1,440 | 1,690 | 7,040 | 1,180 | 699 | 729 | 735 |
| 31 | 959 | ------ | 700 | 800 | ------ | 2,150 | ------ | 5,870 | ------ | 682 | 739 | ------ |
| TOTAL | 38,272 | 32,513 | 19,732 | 24,420 | 16,400 | 101,440 | 92,550 | 115,370 | 57,970 | 21,548 | 25,528 | 24,184 |
| MEAN | 1,235 | 1,084 | 604 | 788 | 586 | 3,272 | 3,085 | 3,722 | 1,932 | 695 | 823 | 806 |
| MAX | 2,370 | 1,930 | 758 | 1,100 | 820 | 6,160 | 4,990 | 7,040 | 4,770 | 1,060 | 1,460 | 1,430 |
| MIN | 646 | 527 | 399 | 600 | 440 | 490 | 1,690 | 1,580 | 1,020 | 423 | 465 | 515 |
| CFSM | 1.10 | .96 | .54 | .70 | .52 | 2.91 | 2.74 | 3.31 | 1.72 | .62 | .73 | .72 |
| IN. | 1.27 | 1.08 | .62 | .81 | .54 | 3.36 | 3.06 | 3.82 | 1.92 | .71 | .84 | .80 |

* CAL YR 1972 TOTAL 399,743 MEAN 1,092 MAX 5,730 MIN 310 CFSM .97 IN 13.23
WTR YR 1973 TOTAL 568,927 MEAN 1,559 MAX 7,040 MIN 399 CFSM 1.39 IN 18.83

## 04070000 Wheeler Lake near Lakewood, Wis.

LOCATION.--Lat 45°19'07", long 88°28'58", in NW¼ sec.27, T.33 N., R.16 E., Oconto County, near the home of Carl Zuelzke on west shore of lake 2.3 mi (3.7 km) northeast of Lakewood.

DRAINAGE AREA.--2 $mi^2$ (5 $km^2$), approximately. Area of Wheeler Lake, 380 acres (1.54 $km^2$).

PERIOD OF RECORD.--August 1936 to current year (fragmentary).

GAGE.--Nonrecording gage. Datum of gage is 90.00 ft (27.4 m) above datum assumed by Wisconsin Department of Natural Resources; gage readings have been reduced to elevations above this datum. Prior to Apr. 19, 1936, nonrecording gage was located on east shore of lake. Apr. 20, 1939, to Apr. 13, 1960, nonrecording gage was located on southwest shore of lake.

EXTREMES.--Current year: Maximum elevation observed, 7.31 ft (2.228 m) June 6; minimum observed, 6.31 ft (1.923 m) Oct. 18.

Period of record: Maximum elevation observed, 7.31 ft (2.228 m) June 6, 1973; minimum observed, 3.45 ft (1.052 m) Feb. 5, 1950.

REMARKS.--Add 90 ft (27.4 m) to obtain elevation above datum assumed for this lake by Wisconsin Department of Natural Resources. Lake has no surface outlet. Lake was ice covered about Nov. 22 to Apr. 2.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 6.35 | | | | | | | | | 6.68 | |
| 2 | | | | | | | 6.89 | 7.03 | | | | |
| 3 | | | | | | | | | | 7.05 | | |
| 4 | 6.44 | | | | | | | | | | | 6.78 |
| 5 | | | | | | | | | | | | |
| 6 | | | | | | | | | 7.31 | | | |
| 7 | | | | | 6.72 | | | | | | 6.85 | |
| 8 | | 6.43 | | | | | | | | | 6.76 | |
| 9 | | | | | | | | 7.17 | | | | |
| 10 | | | | | | | | | | 7.01 | | |
| 11 | | | | | | | 6.88 | | 7.27 | | | |
| 12 | | | | | | | | | | | | |
| 13 | | | | | | | | | 7.27 | | | 6.61 |
| 14 | | | 6.50 | | | | | | | | 6.73 | |
| 15 | | 6.44 | | | | | | | | | | |
| 16 | 6.33 | | | | | | | 7.28 | | | | |
| 17 | | | | | | | | | | | | |
| 18 | 6.31 | | | | | | 6.97 | | | 6.92 | | |
| 19 | | | | | | | | | | | | 6.53 |
| 20 | | | | | | | | | 7.21 | | | |
| 21 | | | | | | | | | | | 6.71 | |
| 22 | | 6.40 | | | | | | | | | | |
| 23 | | | | | | 6.91 | | 7.05 | | | | |
| 24 | | | | | | | | | | | | |
| 25 | 6.35 | | | | | | 6.95 | | | 6.86 | | |
| 26 | | | | | | | | | | | | 6.55 |
| 27 | | | | | | | | | 7.15 | | | |
| 28 | | | | | | | | | | | | |
| 29 | | | | | ------ | | | | | | 6.65 | |
| 30 | | | | | ------ | | | 7.23 | | | | |
| 31 | | ------ | | | ------ | | ------ | | ------ | | | ------ |

## STREAMS TRIBUTARY TO LAKE MICHIGAN

### 04071000 Oconto River near Gillett, Wis.

LOCATION.--Lat 44°51'53", long 88°18'00", in NW¼ sec.34, T.28 N., R.18 E., Oconto County, on left bank 300 ft (91 m) upstream from County Trunk BB bridge, 2.0 mi (3.2 km) upstream from Christy Brook, 2.0 mi (3.2 km) south of Gillett, and at mile 29 (47 km).

DRAINAGE AREA.--678 $mi^2$ (1,756 $km^2$).

PERIOD OF RECORD.--June 1906 to March 1909, October 1913 to current year. Monthly discharge only for some periods, published in WSP 1307.

GAGE.--Water-stage recorder. Datum of gage is 732.87 ft (223.379 m) above mean sea level (levels by Wisconsin Department of Transportation). See WSP 1727 for history of changes prior to Aug. 25, 1938.

AVERAGE DISCHARGE.--62 years (1906-8, 1913-73), 581 $ft^3/s$ (16.45 $m^3/s$), 11.64 in/yr (296 mm/yr).

EXTREMES.--Current year: Maximum discharge, about 4,900 $ft^3/s$ (139 $m^3/s$) Mar. 10, gage height, 9.08 ft (2.768 m) backwater from ice; minimum discharge, 315 $ft^3/s$ (8.92 $m^3/s$) Nov. 24, gage height, 1.06 ft (0.323 m).

Period of record: Maximum discharge, 8,400 $ft^3/s$ (238 $m^3/s$) Apr. 10, 1922, gage height, 11.2 ft (3.41 m) from floodmarks, caused by a failure of dam at Pulcifer 4 mi (6.4 km) above station; minimum, 93 $ft^3/s$ (2.63 $m^3/s$) Nov. 26, 1941, gage height, 0.13 ft (0.040 m), flow retarded by anchor ice above station.

REMARKS.--Records good except those for winter months, which are fair.

REVISIONS (WATER YEARS).--WSP 384: Drainage area. WSP 1207: 1922. WSP 1307: 1907-8(M), 1914-16(M), 1918-21(M), 1923-33(M), 1937-38(M), 1943(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 25 to Mar. 12.)

| | | | |
|---|---|---|---|
| 1.0 | 330 | 5.0 | 2,770 |
| 1.5 | 559 | 6.0 | 3,520 |
| 2.0 | 820 | 7.0 | 4,400 |
| 3.0 | 1,410 | 8.0 | 5,380 |
| 4.0 | 2,070 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,090 | 605 | 470 | 600 | 580 | 450 | 1,150 | 1,270 | 2,580 | 741 | 499 | 433 |
| 2 | 1,080 | 666 | 480 | 620 | 580 | 460 | 1,150 | 1,610 | 2,210 | 709 | 506 | 456 |
| 3 | 1,010 | 804 | 490 | 640 | 560 | 490 | 1,220 | 2,150 | 1,930 | 684 | 489 | 559 |
| 4 | 892 | 879 | 500 | 660 | 540 | 540 | 1,390 | 2,410 | 1,740 | 653 | 467 | 618 |
| 5 | 770 | 926 | 500 | 640 | 540 | 640 | 1,500 | 2,360 | 1,630 | 614 | 443 | 653 |
| 6 | 661 | 955 | 500 | 640 | 540 | 800 | 1,510 | 2,130 | 1,560 | 594 | 424 | 638 |
| 7 | 637 | 960 | 500 | 640 | 520 | 1,100 | 1,470 | 2,090 | 1,530 | 579 | 420 | 613 |
| 8 | 627 | 933 | 500 | 640 | 520 | 1,500 | 1,390 | 2,330 | 1,490 | 565 | 438 | 574 |
| 9 | 594 | 895 | 500 | 620 | 520 | 2,500 | 1,340 | 2,630 | 1,430 | 535 | 486 | 530 |
| 10 | 564 | 851 | 500 | 620 | 500 | 4,700 | 1,280 | 2,730 | 1,320 | 533 | 505 | 500 |
| 11 | 548 | 821 | 490 | 600 | 500 | 3,300 | 1,230 | 2,730 | 1,220 | 555 | 490 | 490 |
| 12 | 544 | 803 | 490 | 600 | 500 | 2,700 | 1,210 | 2,580 | 1,160 | 617 | 461 | 466 |
| 13 | 541 | 767 | 480 | 600 | 490 | 3,180 | 1,200 | 2,330 | 1,100 | 658 | 443 | 443 |
| 14 | 528 | 722 | 470 | 580 | 480 | 3,190 | 1,200 | 2,060 | 1,030 | 680 | 433 | 433 |
| 15 | 508 | 688 | 470 | 580 | 480 | 3,250 | 1,230 | 1,810 | 987 | 675 | 433 | 433 |
| 16 | 493 | 643 | 470 | 580 | 480 | 3,250 | 1,440 | 1,660 | 943 | 626 | 471 | 429 |
| 17 | 478 | 612 | 470 | 580 | 470 | 3,060 | 1,720 | 1,540 | 895 | 576 | 485 | 420 |
| 18 | 461 | 577 | 470 | 600 | 470 | 2,760 | 2,050 | 1,440 | 865 | 516 | 554 | 415 |
| 19 | 444 | 571 | 470 | 620 | 470 | 2,390 | 2,140 | 1,360 | 856 | 497 | 679 | 415 |
| 20 | 423 | 564 | 470 | 640 | 470 | 2,070 | 2,070 | 1,320 | 844 | 489 | 754 | 411 |
| 21 | 418 | 546 | 470 | 680 | 460 | 1,780 | 2,070 | 1,280 | 814 | 482 | 798 | 411 |
| 22 | 465 | 538 | 480 | 700 | 460 | 1,700 | 2,280 | 1,240 | 779 | 489 | 776 | 471 |
| 23 | 605 | 526 | 480 | 700 | 460 | 1,600 | 2,290 | 1,210 | 767 | 468 | 716 | 530 |
| 24 | 732 | 474 | 480 | 700 | 460 | 1,500 | 2,050 | 1,160 | 820 | 430 | 628 | 569 |
| 25 | 809 | 480 | 490 | 680 | 450 | 1,400 | 1,810 | 1,220 | 907 | 456 | 564 | 544 |
| 26 | 859 | 480 | 490 | 660 | 450 | 1,400 | 1,620 | 1,260 | 940 | 532 | 554 | 564 |
| 27 | 876 | 480 | 490 | 640 | 450 | 1,300 | 1,460 | 1,450 | 903 | 562 | 549 | 593 |
| 28 | 829 | 480 | 490 | 620 | 450 | 1,300 | 1,350 | 2,540 | 853 | 524 | 525 | 583 |
| 29 | 757 | 470 | 500 | 620 | ------ | 1,220 | 1,260 | 3,100 | 812 | 521 | 500 | 562 |
| 30 | 671 | 470 | 520 | 600 | ------ | 1,190 | 1,190 | 3,230 | 782 | 531 | 476 | 553 |
| 31 | 627 | ------ | 540 | 600 | ------ | 1,170 | ------ | 2,950 | ------ | 514 | 456 | ------ |
| TOTAL | 20,541 | 20,186 | 15,120 | 19,500 | 13,850 | 57,890 | 46,270 | 61,180 | 35,697 | 17,605 | 16,422 | 15,309 |
| MEAN | 663 | 673 | 488 | 629 | 495 | 1,867 | 1,542 | 1,974 | 1,190 | 568 | 530 | 510 |
| MAX | 1,090 | 960 | 540 | 700 | 580 | 4,700 | 2,290 | 3,230 | 2,580 | 741 | 798 | 653 |
| MIN | 418 | 470 | 470 | 580 | 450 | 450 | 1,150 | 1,160 | 767 | 430 | 420 | 411 |
| CFSM | .98 | .99 | .72 | .93 | .73 | 2.75 | 2.27 | 2.91 | 1.76 | .84 | .78 | .75 |
| IN. | 1.13 | 1.11 | .83 | 1.07 | .76 | 3.18 | 2.54 | 3.36 | 1.96 | .97 | .90 | .84 |

CAL YR 1972 TOTAL 242,205 MEAN 662 MAX 3,080 MIN 300 CFSM .98 IN 13.29
WTR YR 1973 TOTAL 339,570 MEAN 930 MAX 4,700 MIN 411 CFSM 1.37 IN 18.63

PEAK DISCHARGE (BASE, 1,500 $FT^3/S$)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 3-10 | -- | -- | a4,900 | 5-11 | 0100 | 4.96 | 2,750 |
| 4- 5 | 2100 | 3.19 | 1,520 | 5-30 | 0100 | 5.68 | 3,300 |
| 4-23 | 0100 | 4.42 | 2,360 | | | | |

a About.

## STREAMS TRIBUTARY TO LAKE MICHIGAN

### 04071858 Pensaukee River near Pensaukee, Wis.

LOCATION.--Lat 44°49'08", long 87°57'12", in NW¼ NE¼ sec.16, T.27 N., R.21 E., Oconto County, on right bank 300 ft (90 m) downstream from bridge on town road, 2.8 mi (4.5 km) downstream from Brookside Creek, 2.6 mi (4.2 km) west of Pensaukee, 3.5 mi (5.6 km) upstream from mouth.

DRAINAGE AREA.--137 mi² (355 km²).

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 600 ft (182.88 m), from topographic map.

EXTREMES.--Current year: Maximum discharge, 3,880 ft³/s (110 m³/s) May 29, gage height, 12.97 ft (3.953 m); minimum, 5.3 ft³/s (0.15 m³/s) Sept. 14, 15, gage height, 2.25 ft (0.686 m).
Period of record: Maximum discharge, 3,880 ft³/s (110 m³/s) May 29, 1973, gage height, 12.97 ft (3.953 m); minimum, 5.3 ft³/s (0.15 m³/s) Sept. 14, 15, 1973, gage height, 2.25 ft (0.686 m).

REMARKS.--Records good except those for winter months, which are fair.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 22-24, Nov. 28 to Mar. 14.)

| Oct. 1 to Apr. 17 | | | | Apr. 18 to Sept. 30 | | | |
|---|---|---|---|---|---|---|---|
| 2.4 | 12 | 5.0 | 460 | 2.2 | 2.2 | 6.0 | 700 |
| 2.6 | 33 | 7.0 | 960 | 2.4 | 16 | 8.0 | 1,270 |
| 3.0 | 84 | 9.0 | 1,550 | 3.0 | 82 | 10.0 | 1,870 |
| 4.0 | 260 | | | 4.0 | 244 | 13.0 | 3,920 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 514 | 45 | 22 | 60 | 140 | 86 | 168 | 156 | 558 | 29 | 9.0 | 6.2 |
| 2 | 295 | 40 | 22 | 62 | 130 | 94 | 100 | 710 | 364 | 25 | 8.4 | 6.1 |
| 3 | 183 | 394 | 20 | 62 | 130 | 160 | 176 | 1,010 | 246 | 21 | 9.3 | 9.6 |
| 4 | 126 | 345 | 20 | 60 | 120 | 140 | 273 | 588 | 286 | 19 | 7.6 | 9.4 |
| 5 | 91 | 235 | 19 | 58 | 120 | 220 | 296 | 342 | 194 | 16 | 7.0 | 12 |
| 6 | 67 | 158 | 19 | 56 | 110 | 350 | 225 | 222 | 150 | 14 | 6.5 | 9.7 |
| 7 | 55 | 126 | 19 | 54 | 110 | 410 | 201 | 266 | 113 | 14 | 6.3 | 7.6 |
| 8 | 51 | 143 | 19 | 52 | 110 | 620 | 242 | 1,290 | 85 | 12 | 11 | 6.5 |
| 9 | 44 | 145 | 19 | 52 | 100 | 1,100 | 206 | 1,440 | 66 | 11 | 31 | 6.5 |
| 10 | 38 | 121 | 19 | 52 | 100 | 880 | 126 | 889 | 52 | 11 | 21 | 6.2 |
| 11 | 33 | 104 | 19 | 52 | 94 | 1,000 | 144 | 635 | 44 | 11 | 15 | 6.5 |
| 12 | 30 | 90 | 19 | 50 | 92 | 1,200 | 231 | 443 | 110 | 14 | 13 | 6.3 |
| 13 | 28 | 76 | 19 | 50 | 88 | 920 | 339 | 308 | 90 | 19 | 12 | 5.9 |
| 14 | 25 | 63 | 19 | 50 | 86 | 820 | 457 | 219 | 61 | 16 | 11 | 5.9 |
| 15 | 23 | 54 | 19 | 50 | 84 | 1,190 | 451 | 167 | 45 | 15 | 11 | 5.7 |
| 16 | 22 | 47 | 20 | 52 | 82 | 852 | 753 | 137 | 39 | 14 | 11 | 5.9 |
| 17 | 21 | 42 | 20 | 56 | 82 | 558 | 1,260 | 117 | 40 | 12 | 9.6 | 6.1 |
| 18 | 20 | 42 | 20 | 64 | 87 | 358 | 740 | 102 | 45 | 9.9 | 9.0 | 6.8 |
| 19 | 19 | 38 | 20 | 74 | 80 | 271 | 419 | 95 | 41 | 9.2 | 9.9 | 6.9 |
| 20 | 19 | 35 | 21 | 100 | 78 | 222 | 304 | 85 | 35 | 9.2 | 11 | 7.2 |
| 21 | 18 | 34 | 21 | 130 | 78 | 185 | 593 | 74 | 30 | 8.4 | 10 | 7.9 |
| 22 | 24 | 33 | 21 | 170 | 78 | 155 | 540 | 65 | 28 | 8.4 | 8.8 | 17 |
| 23 | 58 | 34 | 22 | 180 | 78 | 137 | 350 | 63 | 28 | 7.8 | 9.8 | 21 |
| 24 | 201 | 31 | 23 | 190 | 78 | 127 | 235 | 68 | 34 | 7.8 | 9.9 | 15 |
| 25 | 256 | 30 | 24 | 200 | 76 | 120 | 172 | 235 | 33 | 8.4 | 9.9 | 14 |
| 26 | 192 | 30 | 24 | 190 | 74 | 117 | 135 | 453 | 28 | 9.9 | 9.9 | 21 |
| 27 | 137 | 30 | 25 | 180 | 80 | 106 | 109 | 338 | 28 | 16 | 9.9 | 18 |
| 28 | 100 | 28 | 27 | 170 | 82 | 94 | 90 | 1,930 | 37 | 11 | 9.0 | 15 |
| 29 | 76 | 26 | 30 | 160 | ------ | 85 | 76 | 2,900 | 37 | 9.9 | 8.1 | 14 |
| 30 | 60 | 24 | 35 | 150 | ------ | 77 | 66 | 1,690 | 33 | 9.9 | 7.1 | 14 |
| 31 | 51 | ------ | 52 | 140 | ------ | 69 | ------ | 843 | ------ | 9.7 | 6.5 | ------ |
| TOTAL | 2,882 | 2,693 | 698 | 3,026 | 2,646 | 12,663 | 9,377 | 17,900 | 2,960 | 488.5 | 327.5 | 299.9 |
| MEAN | 93.0 | 89.8 | 22.5 | 97.6 | 94.5 | 408 | 313 | 577 | 98.7 | 13.2 | 10.6 | 10.0 |
| MAX | 514 | 394 | 52 | 200 | 140 | 1,200 | 1,260 | 2,900 | 558 | 29 | 31 | 21 |
| MIN | 18 | 24 | 19 | 50 | 78 | 69 | 66 | 63 | 28 | 7.8 | 6.3 | 5.7 |
| CFSM | .69 | .66 | .16 | .71 | .69 | 2.98 | 2.28 | 4.21 | .72 | .10 | .08 | .07 |
| IN. | .78 | .73 | .19 | .82 | .72 | 3.44 | 2.55 | 4.86 | .80 | .11 | .09 | .08 |

WTR YR 1973 TOTAL 55,880.9 MEAN 153 MAX 2,900 MIN 5.7 CFSM 1.12 IN 15.17

PEAK DISCHARGE (BASE, 800 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 3- 8 | -- | -- | a1,300 | 5- 3 | 0700 | 7.46 | 1,110 |
| 3-15 | 1000 | 8.02 | 1,260 | 5- 9 | 0100 | 9.25 | 1,640 |
| 4-17 | 1000 | 8.35 | 1,360 | 5-29 | 0600 | 12.97 | 3,880 |

a About.

## 04072750 Lawrence Creek near Westfield, Wis.

**LOCATION.**--Lat 43°53'52", long 89°34'43", in SW¼ sec.32, T.17 N., R.8 E., Marquette County, on left bank 0.8 mi (1.3 km) upstream from Lawrence Lake and 4.0 mi (6.4 km) northwest of Westfield.

**DRAINAGE AREA.**--16 $mi^2$ (41 $km^2$), approximately, includes approximately 10 $mi^2$ (26 $km^2$) without surface drainage.

**PERIOD OF RECORD.**--November 1967 to September 1973 (discontinued).

**GAGE.**--Water-stage recorder. Altitude of gage is 900 ft (270 m), from topographic map.

**AVERAGE DISCHARGE.**--5 years, 17.1 $ft^3/s$ (0.484 $m^3/s$).

**EXTREMES.**--Current year: Maximum discharge, 95 $ft^3/s$ (2.69 $m^3/s$) Mar. 7, gage height, 9.03 ft (2.752 m); minimum daily, 16 $ft^3/s$ (0.45 $m^3/s$) Nov. 5, 6, 11-17, 21-24.

Period of record: Maximum discharge, 95 $ft^3/s$ (2.69 $m^3/s$) Mar. 7, 1973, gage height, 9.03 ft (2.752 m); minimum daily, 12 $ft^3/s$ (0.34 $m^3/s$) Jan. 23-26, 28, 31, Feb. 5, 1968.

**REMARKS.**--Records are fair. Flow includes large ground-water inflow.

Rating table (gage height, in feet, and discharge, in cubic feet per second).

| | | | |
|---|---|---|---|
| 7.8 | 15 | 8.2 | 33 |
| 7.9 | 19 | 8.4 | 45 |
| 8.0 | 23 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 17 | 17 | 17 | 18 | 19 | 17 | 22 | 24 | 21 | 19 | 19 | 21 |
| 2 | 17 | 19 | 17 | 19 | 20 | 17 | 21 | 25 | 21 | 19 | 19 | 21 |
| 3 | 17 | 17 | 17 | 19 | 19 | 19 | 20 | 20 | 22 | 19 | 19 | 21 |
| 4 | 17 | 17 | 17 | 19 | 18 | 18 | 20 | 20 | 21 | 19 | 19 | 21 |
| 5 | 17 | 16 | 17 | 19 | 18 | 18 | 19 | 20 | 21 | 18 | 18 | 21 |
| 6 | 18 | 16 | 17 | 20 | 18 | 22 | 19 | 20 | 20 | 16 | 20 | 21 |
| 7 | 17 | 17 | 17 | 20 | 18 | 34 | 19 | 24 | 20 | 18 | 20 | 21 |
| 8 | 17 | 17 | 17 | 19 | 16 | 22 | 19 | 24 | 20 | 18 | 20 | 21 |
| 9 | 17 | 17 | 17 | 19 | 18 | 20 | 20 | 21 | 20 | 24 | 21 | 21 |
| 10 | 17 | 17 | 17 | 19 | 18 | 23 | 20 | 20 | 19 | 20 | 20 | 21 |
| 11 | 18 | 16 | 18 | 19 | 16 | 27 | 20 | 20 | 21 | 19 | 19 | 21 |
| 12 | 17 | 16 | 18 | 18 | 18 | 22 | 20 | 20 | 22 | 18 | 19 | 21 |
| 13 | 17 | 16 | 18 | 18 | 18 | 20 | 20 | 20 | 20 | 18 | 20 | 21 |
| 14 | 17 | 16 | 18 | 19 | 18 | 25 | 20 | 20 | 20 | 18 | 20 | 21 |
| 15 | 18 | 16 | 18 | 19 | 18 | 20 | 22 | 19 | 20 | 18 | 20 | 21 |
| 16 | 18 | 16 | 18 | 19 | 18 | 20 | 26 | 19 | 24 | 18 | 20 | 22 |
| 17 | 17 | 16 | 18 | 20 | 18 | 20 | 20 | 19 | 21 | 18 | 20 | 22 |
| 18 | 17 | 17 | 18 | 22 | 18 | 19 | 20 | 19 | 20 | 16 | 20 | 21 |
| 19 | 17 | 17 | 18 | 20 | 15 | 19 | 20 | 19 | 20 | 18 | 22 | 22 |
| 20 | 17 | 17 | 18 | 19 | 18 | 19 | 20 | 19 | 20 | 18 | 21 | 22 |
| 21 | 19 | 16 | 18 | 19 | 18 | 19 | 20 | 19 | 19 | 18 | 21 | 23 |
| 22 | 20 | 16 | 18 | 20 | 18 | 19 | 20 | 21 | 19 | 18 | 20 | 27 |
| 23 | 22 | 16 | 18 | 19 | 18 | 19 | 19 | 20 | 20 | 18 | 21 | 22 |
| 24 | 18 | 16 | 18 | 19 | 18 | 19 | 19 | 19 | 19 | 23 | 21 | 22 |
| 25 | 18 | 17 | 18 | 18 | 16 | 19 | 19 | 20 | 19 | 19 | 21 | 24 |
| 26 | 17 | 17 | 18 | 18 | 17 | 19 | 19 | 22 | 20 | 19 | 21 | 22 |
| 27 | 17 | 17 | 18 | 18 | 17 | 19 | 19 | 20 | 20 | 19 | 21 | 22 |
| 28 | 17 | 17 | 18 | 18 | 17 | 19 | 19 | 22 | 20 | 19 | 20 | 22 |
| 29 | 17 | 17 | 19 | 18 | ------ | 19 | 20 | 24 | 20 | 19 | 20 | 23 |
| 30 | 17 | 17 | 19 | 18 | ------ | 18 | 20 | 21 | 19 | 19 | 20 | 22 |
| 31 | 17 | ------ | 19 | 18 | ------ | 18 | ------ | 20 | ------ | 19 | 20 | ------ |
| TOTAL | 544 | 499 | 551 | 587 | 505 | 632 | 601 | 648 | 608 | 583 | 622 | 653 |
| MEAN | 17.5 | 16.6 | 17.8 | 18.9 | 18.0 | 20.4 | 20.0 | 20.9 | 20.3 | 18.8 | 20.1 | 21.8 |
| MAX | 22 | 19 | 19 | 22 | 20 | 34 | 26 | 28 | 24 | 24 | 22 | 27 |
| MIN | 17 | 16 | 17 | 18 | 17 | 17 | 19 | 19 | 19 | 18 | 18 | 21 |

CAL YR 1972 TOTAL 5,147 MEAN 15.9 MAX 19 MIN 14
WTR YR 1973 TOTAL 7,052 MEAN 19.3 MAX 34 MIN 16

NOTE.--No gage-height record Jan. 21 to Feb. 26.

## 04073050 Grand River near Kingston, Wis.

LOCATION.--Lat 43°41'09", long 89°05'09", between secs.16 and 17, T.14 N., R.12 E., Green Lake County, on left bank just upstream of town road bridge, 1.3 mi (2.1 km) upstream and east of Grand Lake and 2.3 mi (3.7 km) east of Kingston.

DRAINAGE AREA.--73.7 $mi^2$ (191 $km^2$).

PERIOD OF RECORD.--April 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 795 ft (242 m), from topographic map.

AVERAGE DISCHARGE.--5 years, 46.8 $ft^3/s$ (1.33 $m^3/s$), 8.62 in/yr (219 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,540 $ft^3/s$ (43.6 $m^3/s$) Mar. 7, gage height, 6.59 ft (2.009 m); minimum, 20 $ft^3/s$ (0.57 $m^3/s$) Sept. 16, 17, gage height, 1.62 ft (0.494 m).
Period of record: Maximum discharge, 1,540 $ft^3/s$ (43.6 $m^3/s$) Mar. 7, 1973, gage height, 6.59 ft (2.009 m); minimum, 2.0 $ft^3/s$ (0.057 $m^3/s$) Nov. 28, 1970, gage height, 1.14 ft (0.348 m), result of freezeup.

REMARKS.--Records good except those for winter period, which are fair. Occasional regulation by mill about 2 mi (3.2 km) upstream.

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Oct. 1-18; stage-discharge relation affected by ice Dec. 4, 5, 10-24, 27, Dec. 30 to Feb. 5, Feb. 8-20, 25-27.)

Oct. 1 to Feb. 28

| | | | |
|---|---|---|---|
| 1.6 | 19 | 4.0 | 218 |
| 2.0 | 43 | 5.0 | 363 |
| 3.0 | 118 | 6.0 | 616 |

Mar. 1 to Sept. 30

Same as preceding table below 4.0 ft.

| | | | |
|---|---|---|---|
| 4.0 | 218 | 6.5 | 1,410 |
| 5.0 | 390 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 123 | 97 | 51 | 110 | 153 | 51 | 108 | 208 | 155 | 59 | 34 | 25 |
| 2 | 109 | 118 | 54 | 120 | 190 | 113 | 160 | 351 | 132 | 56 | 32 | 25 |
| 3 | 97 | 118 | 55 | 110 | 160 | 321 | 154 | 274 | 119 | 53 | 32 | 43 |
| 4 | 88 | 107 | 58 | 100 | 140 | 375 | 157 | 258 | 98 | 50 | 30 | 34 |
| 5 | 78 | 104 | 56 | 110 | 120 | 348 | 148 | 216 | 112 | 44 | 28 | 29 |
| 6 | 77 | 101 | 55 | 100 | 107 | 378 | 134 | 183 | 111 | 40 | 27 | 26 |
| 7 | 73 | 102 | 56 | 90 | 94 | 1,030 | 124 | 206 | 103 | 40 | 27 | 25 |
| 8 | 69 | 99 | 53 | 84 | 90 | 624 | 115 | 274 | 99 | 40 | 31 | 24 |
| 9 | 64 | 92 | 52 | 78 | 84 | 538 | 134 | 252 | 96 | 40 | 43 | 24 |
| 10 | 61 | 91 | 52 | 70 | 80 | 344 | 116 | 245 | 88 | 47 | 43 | 24 |
| 11 | 61 | 88 | 52 | 68 | 78 | 359 | 96 | 219 | 80 | 45 | 38 | 23 |
| 12 | 61 | 84 | 52 | 66 | 76 | 295 | 141 | 193 | 82 | 42 | 34 | 23 |
| 13 | 58 | 79 | 52 | 68 | 74 | 269 | 170 | 169 | 80 | 40 | 31 | 22 |
| 14 | 58 | 75 | 52 | 70 | 73 | 351 | 170 | 151 | 75 | 38 | 32 | 22 |
| 15 | 56 | 70 | 52 | 72 | 72 | 298 | 170 | 139 | 73 | 38 | 31 | 21 |
| 16 | 56 | 67 | 52 | 80 | 70 | 275 | 247 | 127 | 104 | 36 | 30 | 21 |
| 17 | 55 | 65 | 52 | 120 | 68 | 243 | 216 | 122 | 117 | 36 | 29 | 21 |
| 18 | 53 | 64 | 52 | 210 | 64 | 191 | 186 | 111 | 100 | 34 | 35 | 23 |
| 19 | 51 | 63 | 56 | 370 | 62 | 166 | 172 | 117 | 91 | 33 | 53 | 23 |
| 20 | 50 | 61 | 54 | 300 | 60 | 155 | 183 | 112 | 86 | 33 | 44 | 23 |
| 21 | 75 | 61 | 52 | 280 | 59 | 142 | 290 | 107 | 79 | 33 | 37 | 22 |
| 22 | 110 | 60 | 52 | 240 | 59 | 133 | 270 | 159 | 74 | 32 | 33 | 31 |
| 23 | 228 | 56 | 52 | 170 | 51 | 125 | 240 | 155 | 72 | 32 | 46 | 31 |
| 24 | 182 | 56 | 50 | 130 | 51 | 120 | 210 | 137 | 71 | 33 | 55 | 26 |
| 25 | 156 | 58 | 50 | 110 | 52 | 116 | 178 | 210 | 67 | 34 | 48 | 30 |
| 26 | 155 | 61 | 47 | 100 | 54 | 112 | 155 | 168 | 67 | 35 | 41 | 32 |
| 27 | 148 | 62 | 47 | 94 | 52 | 105 | 142 | 189 | 65 | 37 | 35 | 28 |
| 28 | 136 | 59 | 45 | 84 | 52 | 101 | 132 | 342 | 65 | 34 | 30 | 25 |
| 29 | 121 | 51 | 47 | 90 | ------ | 98 | 145 | 237 | 64 | 32 | 28 | 26 |
| 30 | 107 | 52 | 60 | 88 | ------ | 95 | 163 | 200 | 61 | 33 | 26 | 26 |
| 31 | 100 | ------ | 80 | 85 | ------ | 92 | ------ | 180 | ------ | 34 | 25 | ------ |
| TOTAL | 2,916 | 2,322 | 1,650 | 3,867 | 2,345 | 7,963 | 5,026 | 6,011 | 2,686 | 1,213 | 1,088 | 778 |
| MEAN | 94.1 | 77.4 | 53.2 | 125 | 83.8 | 257 | 168 | 194 | 89.5 | 39.1 | 35.1 | 25.9 |
| MAX | 228 | 118 | 80 | 370 | 190 | 1,030 | 290 | 351 | 155 | 59 | 55 | 43 |
| MIN | 50 | 51 | 45 | 66 | 51 | 51 | 96 | 107 | 61 | 32 | 25 | 21 |
| CFSM | 1.28 | 1.05 | .72 | 1.70 | 1.14 | 3.49 | 2.28 | 2.63 | 1.21 | .53 | .48 | .35 |
| IN. | 1.47 | 1.17 | .83 | 1.95 | 1.18 | 4.02 | 2.54 | 3.03 | 1.36 | .61 | .55 | .39 |

CAL YR 1972 TOTAL 20,050.1 MEAN 54.8 MAX 500 MIN 7.3 CFSM .74 IN 10.12
WTR YR 1973 TOTAL 37,865.0 MEAN 104 MAX 1,030 MIN 21 CFSM 1.41 IN 19.11

PEAK DISCHARGE (BASE, 150 $FT^3/S$)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-23 | 1300 | 4.38 | 256 | 4-16 | 1200 | 4.50 | 285 |
| 1-19 | -- | -- | a400 | 4-21 | 0600 | 4.64 | 310 |
| 2- 2 | -- | -- | a250 | 5- 2 | 0500 | 5.12 | 423 |
| 3- 7 | 0600 | 6.59 | 1,540 | 5- 8 | 0800 | 4.50 | 285 |
| 4- 2 | 1700 | 3.57 | 171 | 5-28 | 0600 | 4.97 | 378 |

## 04073500 Fox River at Berlin, Wis.

LOCATION.--Lat 43°57'14", long 88°57'08", in NE¼ sec.16, T.17 N., R.13 E., Green Lake County, on left bank, 0.4 mi (0.6 km) downstream from government dam, 1.0 mi (1.6 km) south of Huron Street bridge in Berlin, 2.5 mi (4.0 km) upstream from Barnes Creek, and at mi 89.0 (m 143).

DRAINAGE AREA.--1,430 $mi^2$ (3,700 $km^2$), approximately.

PERIOD OF RECORD.--January 1898 to current year.

GAGE.--Water-stage recorder. Datum of gage is 744.52 ft (226.930 m) above mean tide at New York City (by Corps of Engineers). Prior to Oct. 27, 1954, nonrecording gage at site 0.3 mi (0.5 km) upstream at same datum.

AVERAGE DISCHARGE.--75 years, 1,089 $ft^3/s$ (30.8 $m^3/s$), 10.34 in/yr (263 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,010 $ft^3/s$ (170 $m^3/s$) Mar. 15, gage height, 15.59 ft (4.752 m); minimum, 644 $ft^3/s$ (18.2 $m^3/s$) Sept. 20, 21, gage height, 8.21 ft (2.502 m).
Period of record: Maximum discharge, 6,900 $ft^3/s$ (195 $m^3/s$) Mar. 17, 18, 1946, gage height, 15.5 ft (4.724 m); minimum observed, 248 $ft^3/s$ (7.02 $m^3/s$) Sept. 16, 1948, gage height, 0.1 ft (1.859 m).

REMARKS.--Records good except those for October to March, which are fair. Usually less than about 5 $ft^3/s$ (0.14 $m^3/s$) was diverted into the basin from the Wisconsin River at Portage Canal throughout the year.

REVISIONS.--WSP 1337: 1910.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 30 to Mar. 14.)

| | | | |
|---|---|---|---|
| 8.5 | 770 | 12.0 | 2,800 |
| 9.0 | 1,020 | 14.0 | 4,440 |
| 10.0 | 1,560 | 16.0 | 6,460 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,400 | 2,280 | 1,300 | 1,300 | 1,600 | 1,400 | 3,490 | 3,500 | 3,480 | 1,760 | 680 | 810 |
| 2 | 2,400 | 2,340 | 1,200 | 1,300 | 1,600 | 1,400 | 3,460 | 3,720 | 3,410 | 1,700 | 694 | 780 |
| 3 | 2,460 | 2,340 | 1,200 | 1,300 | 1,600 | 1,500 | 3,400 | 3,910 | 3,350 | 1,640 | 702 | 758 |
| 4 | 2,460 | 2,340 | 1,200 | 1,200 | 1,600 | 1,600 | 3,370 | 3,970 | 3,280 | 1,610 | 712 | 766 |
| 5 | 2,520 | 2,340 | 1,100 | 1,100 | 1,600 | 1,800 | 3,360 | 3,960 | 3,200 | 1,610 | 702 | 766 |
| 6 | 2,590 | 2,340 | 1,100 | 1,100 | 1,500 | 2,000 | 3,320 | 3,940 | 3,090 | 1,600 | 689 | 743 |
| 7 | 2,590 | 2,340 | 1,100 | 1,100 | 1,500 | 2,500 | 3,270 | 4,050 | 3,000 | 1,410 | 689 | 726 |
| 8 | 2,590 | 2,340 | 1,100 | 1,100 | 1,400 | 3,500 | 3,230 | 4,300 | 2,900 | 1,090 | 712 | 736 |
| 9 | 2,460 | 2,340 | 1,100 | 1,100 | 1,400 | 5,200 | 3,180 | 4,460 | 2,800 | 1,010 | 752 | 740 |
| 10 | 2,400 | 2,280 | 1,100 | 1,100 | 1,500 | 5,400 | 3,120 | 4,530 | 2,700 | 970 | 795 | 726 |
| 11 | 2,340 | 2,280 | 1,100 | 1,100 | 1,500 | 5,400 | 3,060 | 4,510 | 2,610 | 925 | 810 | 728 |
| 12 | 2,280 | 2,280 | 1,100 | 1,100 | 1,500 | 5,400 | 3,060 | 4,460 | 2,560 | 915 | 805 | 693 |
| 13 | 2,280 | 2,220 | 1,100 | 1,100 | 1,500 | 5,600 | 3,100 | 4,370 | 2,480 | 915 | 815 | 694 |
| 14 | 2,280 | 2,220 | 1,100 | 1,100 | 1,400 | 5,800 | 3,140 | 4,280 | 2,390 | 875 | 795 | 674 |
| 15 | 2,220 | 2,160 | 1,100 | 1,100 | 1,400 | 5,970 | 3,190 | 4,180 | 2,320 | 845 | 770 | 663 |
| 16 | 2,160 | 2,160 | 1,100 | 1,100 | 1,300 | 5,930 | 3,390 | 4,050 | 2,310 | 820 | 780 | 664 |
| 17 | 2,100 | 2,100 | 1,100 | 1,100 | 1,200 | 5,870 | 3,570 | 3,920 | 2,310 | 815 | 775 | 658 |
| 18 | 2,100 | 2,100 | 1,100 | 1,200 | 1,200 | 5,780 | 3,640 | 3,780 | 2,290 | 795 | 775 | 660 |
| 19 | 2,100 | 2,040 | 1,100 | 1,300 | 1,200 | 5,660 | 3,630 | 3,670 | 2,260 | 766 | 810 | 677 |
| 20 | 1,980 | 2,040 | 1,200 | 1,400 | 1,200 | 5,530 | 3,710 | 3,560 | 2,220 | 720 | 825 | 669 |
| 21 | 1,980 | 1,980 | 1,200 | 1,500 | 1,300 | 5,390 | 3,970 | 3,450 | 2,170 | 720 | 795 | 652 |
| 22 | 1,980 | 1,980 | 1,200 | 1,600 | 1,300 | 5,230 | 4,120 | 3,380 | 2,130 | 712 | 800 | 712 |
| 23 | 1,980 | 1,980 | 1,200 | 1,700 | 1,300 | 5,060 | 4,100 | 3,310 | 2,100 | 707 | 835 | 724 |
| 24 | 2,100 | 1,980 | 1,200 | 1,800 | 1,300 | 4,860 | 4,040 | 3,210 | 2,080 | 716 | 865 | 704 |
| 25 | 2,100 | 1,980 | 1,200 | 1,800 | 1,400 | 4,650 | 3,910 | 3,210 | 2,050 | 668 | 875 | 744 |
| 26 | 2,160 | 1,980 | 1,200 | 1,800 | 1,400 | 4,470 | 3,840 | 3,180 | 2,000 | 660 | 890 | 774 |
| 27 | 2,220 | 1,920 | 1,200 | 1,800 | 1,400 | 4,280 | 3,730 | 3,140 | 1,970 | 680 | 895 | 813 |
| 28 | 2,220 | 1,860 | 1,200 | 1,700 | 1,400 | 4,080 | 3,630 | 3,340 | 1,930 | 702 | 890 | 776 |
| 29 | 2,220 | 1,800 | 1,200 | 1,600 | ------ | 3,890 | 3,530 | 3,460 | 1,880 | 676 | 875 | 770 |
| 30 | 2,220 | 1,600 | 1,300 | 1,500 | ------ | 3,730 | 3,470 | 3,520 | 1,820 | 725 | 860 | 757 |
| 31 | 2,280 | ------ | 1,300 | 1,500 | ------ | 3,560 | ------ | 3,520 | ------ | 707 | 835 | ------ |
| TOTAL | 70,170 | 63,940 | 36,000 | 41,600 | 39,500 | 132,440 | 105,030 | 117,840 | 75,090 | 30,464 | 24,502 | 21,757 |
| MEAN | 2,264 | 2,131 | 1,161 | 1,342 | 1,411 | 4,272 | 3,501 | 3,801 | 2,503 | 983 | 790 | 725 |
| MAX | 2,590 | 2,340 | 1,300 | 1,800 | 1,600 | 5,970 | 4,120 | 4,530 | 3,480 | 1,760 | 895 | 813 |
| MIN | 1,980 | 1,600 | 1,100 | 1,100 | 1,200 | 1,400 | 3,060 | 3,140 | 1,820 | 660 | 680 | 652 |
| CFSM | 1.58 | 1.49 | .81 | .94 | .99 | 2.99 | 2.45 | 2.66 | 1.75 | .69 | .55 | .51 |
| IN. | 1.83 | 1.66 | .94 | 1.08 | 1.03 | 3.45 | 2.73 | 3.07 | 1.95 | .79 | .64 | .57 |

CAL YR 1972 TOTAL 485,629 MEAN 1,327 MAX 3,420 MIN 504 CFSM .93 IN 12.63
WTR YR 1973 TOTAL 758,333 MEAN 2,078 MAX 5,970 MIN 652 CFSM 1.45 IN 19.73

NOTE.--Once daily staff gage readings used Oct. 1 to Jan. 19.

## 04074950 Wolf River at Langlade, Wis.

**LOCATION.**--Lat 45°11'24", long 88°44'00", between secs.3 and 10, T.31 N., R.14 E., Langlade County, near left bank on upstream side of bridge handrail, on State Highway 64 at Langlade, 1.5 mi (2.4 km) east of White Lake, 3.0 mi (4.8 km) upstream from White Lake Creek, and at about mile 170 (274 km) above mouth.

**DRAINAGE AREA.**--460 mi² (1,191 km²).

**PERIOD OF RECORD.**--March 1966 to current year.

**GAGE.**--Nonrecording gage. Altitude of gage is about 1,240 ft (378 m), from topographic map.

**AVERAGE DISCHARGE.**--7 years, 494 ft³/s (13.99 m³/s), 14.58 in/yr (370 mm/yr).

**EXTREMES.**--Current year: Maximum discharge observed, 2,200 ft³/s (62.3 m³/s) Mar. 15, gage height, 9.48 ft (2.890 m); maximum gage height observed, 9.96 ft (3.036 m) Mar. 12, backwater from ice; minimum discharge observed, 274 ft³/s (7.76 m³/s) Sept. 19, gage height, 7.55 ft (2.301 m).

Period of record: Maximum discharge observed, 2,200 ft³/s (62.3 m³/s) Mar. 15, 1973, gage height, 9.48 ft (2.890 m); maximum gage height observed, 9.98 ft (3.042 m) Dec. 5, 1968, backwater from ice; minimum discharge observed, 156 ft³/s (4.42 m³/s) Aug. 27-29, 1970.

**REMARKS.**--Records good except those for winter months, which are fair.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 17-25, Nov. 30 to Mar. 16.)

| | | | |
|---|---|---|---|
| 7.5 | 260 | 9.0 | 1,440 |
| 8.0 | 540 | 9.5 | 2,230 |
| 8.5 | 930 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,330 | 540 | 350 | 370 | 390 | 320 | 1,030 | 1,240 | 1,120 | 410 | 377 | 485 |
| 2 | 1,210 | 719 | 360 | 390 | 380 | 320 | 1,050 | 1,370 | 1,060 | 399 | 355 | 666 |
| 3 | 1,130 | 766 | 360 | 400 | 380 | 320 | 1,080 | 1,650 | 993 | 399 | 339 | 860 |
| 4 | 1,070 | 758 | 360 | 410 | 370 | 320 | 1,100 | 1,660 | 957 | 388 | 329 | 939 |
| 5 | 1,020 | 727 | 360 | 410 | 370 | 320 | 1,040 | 1,580 | 930 | 382 | 313 | 948 |
| 6 | 966 | 711 | 370 | 400 | 370 | 340 | 1,000 | 1,450 | 783 | 366 | 308 | 817 |
| 7 | 886 | 711 | 370 | 400 | 370 | 450 | 984 | 1,520 | 742 | 360 | 318 | 673 |
| 8 | 869 | 742 | 380 | 400 | 360 | 1,500 | 984 | 1,560 | 711 | 355 | 324 | 540 |
| 9 | 817 | 792 | 380 | 390 | 360 | 1,300 | 877 | 1,720 | 696 | 360 | 313 | 508 |
| 10 | 775 | 860 | 360 | 390 | 360 | 1,200 | 817 | 1,780 | 673 | 360 | 307 | 476 |
| 11 | 735 | 851 | 370 | 380 | 360 | 1,100 | 877 | 1,620 | 651 | 360 | 308 | 458 |
| 12 | 666 | 825 | 360 | 380 | 360 | 1,100 | 800 | 1,550 | 688 | 405 | 303 | 440 |
| 13 | 615 | 775 | 360 | 380 | 360 | 2,000 | 766 | 1,430 | 758 | 434 | 298 | 422 |
| 14 | 588 | 711 | 360 | 380 | 350 | 2,100 | 719 | 1,320 | 758 | 458 | 339 | 410 |
| 15 | 567 | 574 | 360 | 380 | 350 | 2,200 | 688 | 1,240 | 742 | 410 | 339 | 399 |
| 16 | 554 | 464 | 360 | 390 | 350 | 2,100 | 1,170 | 1,170 | 574 | 388 | 334 | 388 |
| 17 | 540 | 520 | 360 | 390 | 350 | 1,990 | 1,500 | 1,120 | 527 | 366 | 534 | 350 |
| 18 | 521 | 540 | 360 | 400 | 340 | 2,030 | 1,500 | 1,060 | 514 | 355 | 514 | 334 |
| 19 | 514 | 540 | 350 | 420 | 340 | 2,080 | 1,520 | 1,020 | 508 | 339 | 615 | 274 |
| 20 | 502 | 540 | 350 | 420 | 330 | 2,130 | 1,470 | 984 | 482 | 339 | 560 | 318 |
| 21 | 527 | 560 | 350 | 420 | 330 | 1,480 | 1,490 | 975 | 482 | 324 | 489 | 318 |
| 22 | 540 | 520 | 350 | 410 | 330 | 1,360 | 1,500 | 948 | 476 | 324 | 440 | 405 |
| 23 | 601 | 520 | 350 | 410 | 330 | 1,170 | 1,480 | 912 | 476 | 318 | 422 | 377 |
| 24 | 673 | 540 | 350 | 410 | 330 | 1,210 | 1,340 | 886 | 476 | 318 | 416 | 360 |
| 25 | 651 | 460 | 350 | 400 | 330 | 1,170 | 1,230 | 895 | 452 | 339 | 416 | 360 |
| 26 | 630 | 446 | 350 | 400 | 330 | 1,140 | 1,100 | 1,200 | 458 | 355 | 410 | 410 |
| 27 | 615 | 440 | 350 | 400 | 330 | 1,100 | 1,070 | 1,300 | 446 | 344 | 394 | 440 |
| 28 | 594 | 434 | 350 | 400 | 330 | 1,060 | 993 | 1,390 | 446 | 355 | 377 | 416 |
| 29 | 581 | 334 | 360 | 400 | ------ | 1,050 | 948 | 1,490 | 440 | 388 | 366 | 399 |
| 30 | 574 | 350 | 360 | 390 | ------ | 1,050 | 886 | 1,390 | 440 | 377 | 350 | 394 |
| 31 | 567 | ------ | 360 | 390 | ------ | 1,030 | ------ | 1,230 | ------ | 371 | 410 | ------ |
| TOTAL | 22,427 | 18,370 | 11,140 | 12,300 | 9,840 | 38,840 | 32,989 | 40,660 | 19,459 | 11,446 | 11,918 | 14,504 |
| MEAN | 723 | 612 | 359 | 397 | 351 | 1,227 | 1,100 | 1,312 | 649 | 369 | 384 | 483 |
| MAX | 1,330 | 860 | 380 | 420 | 390 | 2,200 | 1,520 | 1,780 | 1,120 | 458 | 615 | 948 |
| MIN | 502 | 334 | 350 | 370 | 330 | 320 | 688 | 886 | 440 | 318 | 298 | 274 |
| CFSM | 1.57 | 1.33 | .78 | .86 | .76 | 2.67 | 2.39 | 2.85 | 1.41 | .80 | .83 | 1.05 |
| IN. | 1.81 | 1.49 | .90 | .99 | .80 | 3.08 | 2.67 | 3.29 | 1.57 | .93 | .96 | 1.17 |

CAL YR 1972 TOTAL 194,496 MEAN 531 MAX 1,770 MIN 220 CFSM 1.15 IN 15.73
WTR YR 1973 TOTAL 243,093 MEAN 666 MAX 2,200 MIN 274 CFSM 1.45 IN 19.68

## 04075200 Evergreen Creek near Langlade, Wis.

**LOCATION.**--Lat 45°10'11", long 88°48'12", in NW¼ sec.18, T.31 N., R.14 E., Langlade County, on right bank 30 ft (9 m) upstream from culvert on State Highway 64, 0.1 mi (0.2 km) downstream from Town Line Lake Outlet, 2.5 mi (4.0 km) upstream from mouth, 3.8 mi (6.1 km) southwest of Langlade.

**DRAINAGE AREA.**--8.0 mi² (21 km²), approximately, of which about 4.9 mi² (12.7 km²) contributes directly to surface runoff.

**PERIOD OF RECORD.**--Annual maximum and occasional low-flow measurements, water years 1959-64, no winter record, June 1964-67, October 1967 to September 1973 (discontinued).

**GAGE.**--Water-stage recorder. Altitude of gage is 1,320 ft (402 m) (from topographic map). Prior to June 16, 1964, nonrecording gage at same site and datum.

**AVERAGE DISCHARGE.**--6 years, 12.0 ft³/s (0.34 m³/s), 1.50 in/yr (38 mm/yr).

**EXTREMES.**--Current year: Maximum discharge, 46 ft³/s (1.30 m³/s) Mar. 7, gage height, 10.79 ft (3.289 m); minimum, 6.9 ft³/s (0.20 m³/s Feb. 16, gage height, 9.53 ft (2.905 m), result of freezeup.

Period of record: Maximum discharge, 78 ft³/s (2.21 m³/s) Apr. 11, 1965, gage height, 11.62 ft (3.542 m); minimum recorded, 6.1 ft³/s (0.17 m³/s) Mar. 14, 1971, gage height, 9.45 ft (2.880 m).

**REMARKS.**--Records good except those for winter months, which are fair.

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 2-20, 29, 30, Jan. 1, 5, 8-15, 29, 30, Feb. 7-19.)

| | | | |
|---|---|---|---|
| 9.5 | 6.5 | 10.3 | 26 |
| 9.9 | 14 | 10.8 | 43 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14 | 14 | 12 | 13 | 12 | 13 | 17 | 25 | 23 | 16 | 15 | 16 |
| 2 | 13 | 19 | 12 | 12 | 12 | 13 | 20 | 31 | 18 | 16 | 14 | 19 |
| 3 | 13 | 19 | 12 | 12 | 11 | 14 | 19 | 21 | 22 | 16 | 14 | 27 |
| 4 | 13 | 15 | 12 | 11 | 11 | 14 | 18 | 16 | 29 | 16 | 14 | 21 |
| 5 | 13 | 14 | 12 | 13 | 11 | 13 | 14 | 14 | 24 | 16 | 14 | 18 |
| 6 | 13 | 14 | 12 | 13 | 11 | 14 | 14 | 15 | 20 | 16 | 14 | 17 |
| 7 | 13 | 14 | 12 | 14 | 11 | 36 | 14 | 28 | 19 | 16 | 16 | 16 |
| 8 | 13 | 14 | 13 | 15 | 11 | 21 | 14 | 38 | 18 | 14 | 18 | 16 |
| 9 | 12 | 13 | 13 | 16 | 11 | 16 | 13 | 21 | 18 | 15 | 18 | 16 |
| 10 | 12 | 12 | 13 | 17 | 12 | 15 | 13 | 19 | 18 | 16 | 16 | 16 |
| 11 | 13 | 12 | 14 | 17 | 12 | 30 | 14 | 16 | 17 | 16 | 16 | 16 |
| 12 | 13 | 12 | 14 | 18 | 12 | 38 | 14 | 15 | 18 | 21 | 16 | 16 |
| 13 | 12 | 12 | 14 | 18 | 12 | 24 | 13 | 14 | 17 | 18 | 18 | 16 |
| 14 | 12 | 11 | 14 | 16 | 13 | 30 | 14 | 14 | 17 | 16 | 20 | 16 |
| 15 | 12 | 11 | 14 | 15 | 13 | 27 | 20 | 14 | 17 | 16 | 18 | 16 |
| 16 | 12 | 12 | 13 | 14 | 13 | 21 | 33 | 14 | 18 | 16 | 17 | 16 |
| 17 | 12 | 12 | 13 | 12 | 13 | 16 | 20 | 14 | 18 | 16 | 20 | 16 |
| 18 | 12 | 12 | 12 | 12 | 14 | 15 | 14 | 14 | 17 | 16 | 20 | 16 |
| 19 | 12 | 12 | 11 | 13 | 14 | 14 | 13 | 14 | 18 | 16 | 19 | 16 |
| 20 | 12 | 12 | 11 | 12 | 13 | 14 | 14 | 13 | 17 | 15 | 18 | 16 |
| 21 | 15 | 11 | 11 | 11 | 13 | 14 | 16 | 13 | 17 | 15 | 17 | 17 |
| 22 | 14 | 11 | 11 | 12 | 13 | 14 | 14 | 13 | 18 | 15 | 17 | 21 |
| 23 | 21 | 12 | 11 | 11 | 13 | 14 | 13 | 14 | 18 | 15 | 17 | 17 |
| 24 | 18 | 12 | 11 | 11 | 13 | 14 | 13 | 14 | 18 | 25 | 17 | 17 |
| 25 | 15 | 12 | 11 | 11 | 13 | 15 | 13 | 20 | 17 | 21 | 17 | 18 |
| 26 | 14 | 12 | 11 | 11 | 17 | 15 | 13 | 25 | 17 | 17 | 16 | 18 |
| 27 | 14 | 12 | 11 | 11 | 16 | 14 | 13 | 18 | 16 | 16 | 17 | 19 |
| 28 | 13 | 12 | 11 | 11 | 13 | 14 | 13 | 37 | 17 | 16 | 17 | 17 |
| 29 | 13 | 12 | 12 | 14 | ------ | 15 | 13 | 27 | 16 | 16 | 17 | 16 |
| 30 | 13 | 12 | 12 | 13 | ------ | 15 | 13 | 19 | 17 | 17 | 16 | 16 |
| 31 | 13 | ------ | 12 | 12 | ------ | 15 | ------ | 19 | ------ | 15 | 18 | ------ |
| TOTAL | 414 | 384 | 377 | 411 | 353 | 557 | 459 | 581 | 554 | 511 | 531 | 528 |
| MEAN | 13.4 | 12.8 | 12.2 | 13.3 | 12.6 | 18.0 | 15.3 | 18.7 | 18.5 | 16.5 | 17.1 | 17.3 |
| MAX | 21 | 19 | 14 | 18 | 17 | 38 | 33 | 37 | 29 | 25 | 28 | 27 |
| MIN | 12 | 11 | 11 | 11 | 11 | 13 | 13 | 13 | 16 | 14 | 14 | 16 |
| CFSM | 1.68 | 1.60 | 1.53 | 1.66 | 1.58 | 2.25 | 1.91 | 2.34 | 2.31 | 2.06 | 2.14 | 2.16 |
| IN. | 1.93 | 1.79 | 1.75 | 1.91 | 1.64 | 2.59 | 2.13 | 2.70 | 2.58 | 2.38 | 2.47 | 2.42 |

CAL YR 1972 TOTAL 4,154.9 MEAN 11.4 MAX 22 MIN 7.2 CFSM 1.43 IN 19.32
WTR YR 1973 TOTAL 5,652.8 MEAN 15.5 MAX 38 MIN 11 CFSM 1.94 IN 26.28

## 04077000 Wolf River at Keshena Falls, Wis.

LOCATION.--Lat 44°53'28", long 88°39'18", in E½ sec.22, T.28 N., R.15 E., Menominee County, on right bank 500 ft (152 m) downstream from Keshena Falls, 1.7 mi (2.7 km) upstream from Keshena, 3.1 mi (5.0 km) downstream from West Branch Wolf River, and at mile 136.4 (219.5 km).

DRAINAGE AREA.--812 mi² (2,103 km²).

PERIOD OF RECORD.--May 1907 to March 1909, October 1910 to current year. Monthly discharge only for some periods, published in WSP 1307. Published as "at Keshena" prior to April 1928.

GAGE.--Water-stage recorder. Datum of gage is 820.0 ft (249.936 m) above mean sea level (levels by Wisconsin Power and Light Co.). Prior to Mar. 23, 1928, nonrecording gage at bridge in Keshena 1.7 mi (2.7 km) downstream at datum 4.03 ft (1.23 m) lower.

AVERAGE DISCHARGE.-- 64 years (1907-8, 1910-73), 762 ft³/s (21.58 m³/s), 12.74 in/yr (324 mm/yr).

EXTREMES.--Current year: Maximum daily discharge, 5,200 ft³/s (147 m³/s) Mar. 15; maximum gage height, 13.86 ft (4.225 m) Mar. 15, backwater from ice; minimum discharge, 471 ft³/s (13.3 m³/s) Nov. 29, gage height, 5.47 ft (1.667 m).

Period of record: Maximum daily discharge, 5,200 ft³/s (147 m³/s) Mar. 15, 1973; maximum gage height, 13.86 ft (4.224 m) Mar. 15, 1973, backwater from ice; minimum discharge, 91 ft³/s (2.58 m³/s) Dec. 22, 1939, gage height, 4.67 ft (1.423 m), result of ice storage.

REMARKS.--Records good except those for winter months, which are fair.

REVISIONS (WATER YEARS).--WSP 664: Drainage area (site at Keshena). WSP 1337: 1914-15(M), 1918-19(M), 1921, 1923(M), 1926(M), 1928(M), 1933.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 18-26, Nov. 29 to Mar. 18.)

| | | | |
|---|---|---|---|
| 5.5 | 448 | 8.0 | 2,800 |
| 6.0 | 842 | 9.0 | 4,000 |
| 7.0 | 1,740 | 10.0 | 5,260 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,700 | 786 | 640 | 1,100 | 660 | 640 | 1,500 | 1,530 | 2,000 | 835 | 727 | 745 |
| 2 | 1,600 | 914 | 660 | 1,100 | 660 | 640 | 1,610 | 2,200 | 1,830 | 810 | 710 | 817 |
| 3 | 1,500 | 1,120 | 680 | 1,000 | 660 | 640 | 1,720 | 2,700 | 1,740 | 790 | 626 | 1,100 |
| 4 | 1,420 | 1,190 | 700 | 1,000 | 660 | 660 | 1,750 | 2,650 | 1,780 | 763 | 580 | 1,370 |
| 5 | 1,340 | 1,110 | 720 | 1,000 | 660 | 680 | 1,670 | 2,370 | 1,790 | 740 | 595 | 1,390 |
| 6 | 1,290 | 1,040 | 720 | 960 | 660 | 720 | 1,550 | 2,150 | 1,630 | 725 | 621 | 1,280 |
| 7 | 1,220 | 1,030 | 720 | 920 | 660 | 1,100 | 1,500 | 2,130 | 1,460 | 716 | 673 | 1,130 |
| 8 | 1,160 | 1,070 | 720 | 980 | 640 | 2,800 | 1,450 | 2,620 | 1,400 | 698 | 727 | 970 |
| 9 | 1,090 | 1,080 | 720 | 980 | 640 | 2,500 | 1,410 | 2,800 | 1,360 | 689 | 736 | 866 |
| 10 | 1,040 | 1,130 | 720 | 860 | 620 | 2,300 | 1,350 | 2,810 | 1,330 | 713 | 683 | 807 |
| 11 | 970 | 1,150 | 700 | 840 | 620 | 2,200 | 1,300 | 2,580 | 1,280 | 698 | 644 | 771 |
| 12 | 915 | 1,120 | 700 | 820 | 620 | 2,100 | 1,320 | 2,360 | 1,280 | 750 | 627 | 738 |
| 13 | 850 | 1,080 | 700 | 800 | 620 | 2,000 | 1,270 | 2,160 | 1,300 | 848 | 615 | 715 |
| 14 | 796 | 1,020 | 700 | 780 | 620 | 3,500 | 1,250 | 1,990 | 1,310 | 848 | 686 | 706 |
| 15 | 763 | 900 | 700 | 780 | 620 | 5,200 | 1,300 | 1,830 | 1,270 | 804 | 784 | 692 |
| 16 | 742 | 717 | 700 | 760 | 620 | 4,000 | 1,820 | 1,740 | 1,180 | 757 | 677 | 680 |
| 17 | 718 | 685 | 700 | 760 | 620 | 3,300 | 2,490 | 1,680 | 1,070 | 722 | 814 | 670 |
| 18 | 700 | 700 | 720 | 760 | 620 | 2,800 | 2,570 | 1,620 | 1,020 | 695 | 988 | 643 |
| 19 | 682 | 720 | 740 | 760 | 620 | 2,540 | 2,300 | 1,580 | 974 | 673 | 1,130 | 611 |
| 20 | 673 | 740 | 780 | 740 | 620 | 2,340 | 2,110 | 1,540 | 946 | 651 | 1,030 | 604 |
| 21 | 712 | 700 | 800 | 740 | 620 | 2,010 | 2,200 | 1,490 | 916 | 640 | 910 | 602 |
| 22 | 769 | 660 | 820 | 740 | 620 | 1,790 | 2,160 | 1,430 | 929 | 631 | 821 | 738 |
| 23 | 930 | 660 | 860 | 720 | 620 | 1,720 | 2,090 | 1,380 | 947 | 625 | 769 | 767 |
| 24 | 1,100 | 680 | 900 | 700 | 620 | 1,680 | 1,960 | 1,290 | 1,080 | 642 | 757 | 720 |
| 25 | 1,080 | 760 | 940 | 700 | 620 | 1,650 | 1,800 | 1,500 | 990 | 837 | 746 | 709 |
| 26 | 990 | 660 | 1,000 | 680 | 640 | 1,640 | 1,680 | 1,890 | 923 | 810 | 732 | 757 |
| 27 | 932 | 641 | 1,000 | 680 | 640 | 1,670 | 1,580 | 2,030 | 898 | 753 | 722 | 801 |
| 28 | 871 | 591 | 1,100 | 680 | 640 | 1,610 | 1,490 | 2,510 | 877 | 717 | 702 | 804 |
| 29 | 831 | 600 | 1,100 | 680 | ------ | 1,560 | 1,410 | 2,910 | 864 | 720 | 679 | 779 |
| 30 | 803 | 600 | 1,100 | 680 | ------ | 1,630 | 1,350 | 2,610 | 859 | 770 | 659 | 732 |
| 31 | 792 | ------ | 1,100 | 660 | ------ | 1,520 | ------ | 2,230 | ------ | 750 | 656 | ------ |
| TOTAL | 30,987 | 25,862 | 24,860 | 25,200 | 17,740 | 61,140 | 50,970 | 64,290 | 37,233 | 22,828 | 22,746 | 24,714 |
| MEAN | 1,000 | 862 | 802 | 813 | 634 | 1,972 | 1,699 | 2,074 | 1,241 | 736 | 734 | 824 |
| MAX | 1,700 | 1,190 | 1,100 | 1,100 | 660 | 5,200 | 2,570 | 2,910 | 2,000 | 848 | 1,130 | 1,390 |
| MIN | 673 | 591 | 640 | 660 | 620 | 640 | 1,250 | 1,290 | 859 | 625 | 580 | 602 |
| CFSM | 1.23 | 1.06 | .99 | 1.00 | .78 | 2.43 | 2.09 | 2.55 | 1.53 | .91 | .90 | 1.01 |
| IN. | 1.42 | 1.18 | 1.14 | 1.15 | .81 | 2.80 | 2.34 | 2.95 | 1.71 | 1.05 | 1.04 | 1.13 |

CAL YR 1972 TOTAL 395,468 MEAN 835 MAX 2,720 MIN 410 CFSM 1.03 IN 13.99
WTR YR 1973 TOTAL 408,570 MEAN 1,119 MAX 5,200 MIN 580 CFSM 1.38 IN 18.72

PEAK DISCHARGE (BASE, 1,500 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 3-15 | -- | -- | a5,200 | 5-10 | 0100 | 8.06 | 2,870 |
| 4-18 | 0300 | 7.87 | 2,660 | 5-29 | 0600 | 8.09 | 2,940 |

a About.

## 04078500 Embarrass River near Embarrass, Wis.

LOCATION.--Lat 44°43'29", long 88°44'10", in SW¼ sec.18, T.26 N., R.15 E., Shawano County, on left bank 10 ft (3 m) downstream from bridge on county road, 1.3 mi (2.1 km) downstream from Mill Creek, and 4.0 mi (6.4 km) northwest of Embarrass.

DRAINAGE AREA.--395 $mi^2$ (1,023 $km^2$).

PERIOD OF RECORD.--June 1919 to current year.

GAGE.--Water-stage recorder. Datum of gage is 803.95 ft (245.044 m) above mean sea level. Prior to Aug. 23, 1938, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--54 years, 291 $ft^3/s$ (8.241 $m^3/s$), 10.00 in/yr (254 mm/yr).

EXTREMES.--Current year: Maximum discharge, about 4,000 $ft^3/s$ (113 $m^3/s$) Mar. 8; maximum gage height, 9.89 ft (3.014 m) Mar. 8, backwater from ice; minimum discharge, 95 $ft^3/s$ (2.69 $m^3/s$) July 22, gage height, 2.74 ft (0.835 m).

Period of record: Maximum discharge, 7,080 $ft^3/s$ (200 $m^3/s$) Apr. 12, 1965, gage height, 12.13 ft (3.697 m), affected by failure of dam near Pella, 9.2 mi (14.8 km) above station; minimum observed, 23 $ft^3/s$ (0.65 $m^3/s$) Aug. 3, 6, 7, 1931.

REMARKS.--Records good except those for winter months, which are fair. Slight diurnal fluctuation caused by powerplants above station.

REVISIONS (WATER YEARS).--WSP 1337: 1920-26(M), 1928, 1929-30(M), 1933-34, 1936-37, 1938(M), 1940.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 20, 23, Nov. 25 to Mar. 9.)

| | | | |
|---|---|---|---|
| 2.8 | 104 | 5.0 | 1,140 |
| 3.0 | 151 | 7.0 | 2,340 |
| 3.4 | 290 | 9.0 | 3,760 |
| 4.0 | 589 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,100 | 283 | 190 | 280 | 240 | 180 | 626 | 692 | 1,300 | 257 | 169 | 154 |
| 2 | 988 | 332 | 190 | 300 | 230 | 180 | 669 | 1,740 | 1,050 | 258 | 165 | 148 |
| 3 | 708 | 506 | 200 | 300 | 230 | 190 | 767 | 2,520 | 809 | 242 | 160 | 226 |
| 4 | 542 | 630 | 290 | 300 | 220 | 200 | 903 | 2,210 | 834 | 220 | 154 | 352 |
| 5 | 434 | 651 | 210 | 300 | 220 | 230 | 917 | 1,700 | 845 | 207 | 149 | 285 |
| 6 | 399 | 590 | 210 | 300 | 210 | 270 | 836 | 1,220 | 964 | 202 | 146 | 210 |
| 7 | 383 | 494 | 210 | 290 | 210 | 450 | 809 | 1,190 | 934 | 195 | 151 | 174 |
| 8 | 347 | 459 | 210 | 280 | 200 | 3,400 | 809 | 1,960 | 777 | 191 | 175 | 158 |
| 9 | 305 | 461 | 210 | 280 | 200 | 2,800 | 766 | 2,280 | 642 | 195 | 205 | 154 |
| 10 | 262 | 435 | 220 | 280 | 200 | 2,350 | 657 | 2,040 | 553 | 215 | 208 | 154 |
| 11 | 251 | 394 | 220 | 270 | 200 | 2,700 | 631 | 1,760 | 585 | 217 | 193 | 151 |
| 12 | 249 | 359 | 220 | 270 | 200 | 3,460 | 683 | 1,350 | 516 | 208 | 181 | 146 |
| 13 | 248 | 304 | 220 | 260 | 200 | 3,400 | 723 | 1,100 | 544 | 211 | 171 | 142 |
| 14 | 207 | 292 | 220 | 260 | 200 | 3,350 | 741 | 928 | 472 | 207 | 169 | 141 |
| 15 | 219 | 271 | 210 | 260 | 200 | 3,600 | 812 | 800 | 417 | 193 | 171 | 141 |
| 16 | 213 | 249 | 210 | 260 | 190 | 3,100 | 1,410 | 713 | 391 | 184 | 170 | 141 |
| 17 | 203 | 234 | 210 | 260 | 190 | 2,290 | 2,210 | 639 | 393 | 176 | 167 | 141 |
| 18 | 197 | 224 | 200 | 260 | 190 | 1,550 | 2,260 | 595 | 390 | 171 | 161 | 139 |
| 19 | 190 | 219 | 200 | 280 | 190 | 1,160 | 1,790 | 605 | 368 | 164 | 157 | 140 |
| 20 | 183 | 210 | 200 | 300 | 190 | 982 | 1,340 | 596 | 329 | 161 | 155 | 139 |
| 21 | 189 | 210 | 200 | 310 | 190 | 895 | 1,290 | 576 | 322 | 158 | 150 | 143 |
| 22 | 226 | 200 | 200 | 330 | 180 | 807 | 1,280 | 551 | 309 | 143 | 147 | 196 |
| 23 | 414 | 200 | 200 | 310 | 180 | 730 | 1,150 | 542 | 310 | 135 | 147 | 243 |
| 24 | 670 | 194 | 200 | 300 | 180 | 685 | 1,010 | 544 | 340 | 156 | 146 | 220 |
| 25 | 772 | 200 | 200 | 290 | 180 | 695 | 842 | 758 | 322 | 178 | 144 | 202 |
| 26 | 699 | 200 | 200 | 280 | 180 | 722 | 710 | 1,400 | 384 | 238 | 154 | 193 |
| 27 | 586 | 200 | 200 | 270 | 180 | 728 | 627 | 1,500 | 287 | 240 | 157 | 218 |
| 28 | 453 | 200 | 200 | 260 | 180 | 712 | 519 | 1,870 | 270 | 209 | 150 | 219 |
| 29 | 373 | 200 | 210 | 250 | ------ | 689 | 505 | 2,660 | 264 | 189 | 132 | 210 |
| 30 | 325 | 190 | 220 | 250 | ------ | 648 | 486 | 2,290 | 265 | 182 | 129 | 189 |
| 31 | 297 | ------ | 250 | 240 | ------ | 609 | ------ | 1,700 | ------ | 176 | 133 | ------ |
| TOTAL | 12,536 | 9,591 | 6,440 | 8,680 | 5,560 | 42,962 | 28,786 | 41,029 | 16,026 | 6,070 | 4,966 | 5,469 |
| MEAN | 404 | 320 | 208 | 280 | 199 | 1,386 | 960 | 1,324 | 534 | 196 | 160 | 182 |
| MAX | 1,100 | 651 | 250 | 330 | 240 | 3,600 | 2,260 | 2,660 | 1,300 | 257 | 208 | 352 |
| MIN | 183 | 190 | 190 | 240 | 180 | 180 | 486 | 542 | 264 | 135 | 129 | 139 |
| CFSM | 1.02 | .81 | .53 | .71 | .50 | 3.51 | 2.43 | 3.35 | 1.35 | .50 | .41 | .46 |
| IN. | 1.18 | .90 | .61 | .82 | .52 | 4.05 | 2.71 | 3.85 | 1.51 | .57 | .47 | .52 |

CAL YR 1972 TOTAL 130,707 MEAN 357 MAX 3,090 MIN 118 CFSM .90 IN 12.31
WTR YR 1973 TOTAL 188,115 MEAN 515 MAX 3,600 MIN 129 CFSM 1.30 IN 17.72

## 04079000 Wolf River at New London, Wis.

LOCATION.--Lat 44°23'32", long 88°44'25", in NE¼ SE¼ sec.12, T.22 N., R.14 E., Waupaca County, on right bank 100 ft (30 m) downstream from Pearl Street bridge in New London, 0.2 mi (0.3 km) downstream from Embarrass River, and at mile 56.3 (90.6 km).

DRAINAGE AREA.--2,240 $mi^2$ (5,800 $km^2$), approximately.

PERIOD OF RECORD.--March 1896 to current year. Prior to October 1913 monthly discharges only, published in WSP 1307.

GAGE.--Water-stage recorder. Datum of gage is 749.0 ft (228.295 m) above mean sea level (levels by Corps of Engineers). Prior to October 4, 1951, nonrecording gage.

AVERAGE DISCHARGE.--77 years, 1,729 $ft^3/s$ (48.97 $m^3/s$), 10.48 in/yr (266 mm/yr).

EXTREMES.--Current year: Maximum discharge, 14,100 $ft^3/s$ (399 $m^3/s$) Mar. 16, gage height, 11.22 ft (3.420 m); minimum, 1,000 $ft^3/s$ (28.3 $m^3/s$) Sept. 21, gage height, 2.10 ft (0.640 m).

Period of record: Maximum daily discharge, 15,500 $ft^3/s$ (439 $m^3/s$) Apr. 13, 1922, gage height, 11.4 ft (3.47 m); minimum daily, 150 $ft^3/s$ (4.25 $m^3/s$) Mar. 1, 1900.

Maximum stage known, 11.6 ft (3.54 m) Apr. 16, 1888, from information by Corps of Engineers.

REMARKS.--Records good except those for winter periods, which are fair.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Oct. 1-9, July 3 to Sept. 30; stage-discharge relation affected by ice Nov. 26-28, Dec. 1 to Mar. 11.)

| Oct. 1 to Mar. 11 | | | | Mar. 12 to Sept. 30 | | | |
|---|---|---|---|---|---|---|---|
| 2.0 | 1,060 | 8.0 | 4,990 | 1.9 | 1,020 | 8.0 | 4,890 |
| 4.0 | 1,910 | 9.0 | 7,540 | 4.0 | 1,910 | 10.0 | 9,890 |
| 6.0 | 2,950 | 10.0 | 11,000 | 6.0 | 2,950 | 11.5 | 15,300 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3,710 | 2,920 | 1,600 | 1,700 | 2,300 | 1,200 | 4,090 | 4,710 | 8,550 | 2,230 | 1,320 | 1,130 |
| 2 | 3,850 | 2,890 | 1,600 | 1,700 | 2,200 | 1,200 | 4,000 | 4,940 | 8,760 | 2,140 | 1,310 | 1,130 |
| 3 | 3,960 | 2,920 | 1,600 | 1,800 | 2,100 | 1,300 | 3,970 | 5,270 | 8,540 | 2,040 | 1,280 | 1,120 |
| 4 | 4,030 | 2,980 | 1,600 | 1,800 | 2,000 | 1,400 | 3,960 | 5,590 | 8,010 | 1,940 | 1,250 | 1,170 |
| 5 | 4,050 | 3,030 | 1,600 | 1,800 | 2,000 | 1,500 | 3,930 | 6,070 | 7,400 | 1,840 | 1,220 | 1,340 |
| 6 | 4,080 | 3,050 | 1,700 | 1,800 | 1,900 | 1,800 | 3,980 | 6,750 | 6,770 | 1,740 | 1,170 | 1,480 |
| 7 | 4,030 | 3,060 | 1,700 | 1,800 | 1,900 | 2,200 | 4,110 | 7,300 | 6,180 | 1,650 | 1,130 | 1,520 |
| 8 | 3,930 | 3,070 | 1,700 | 1,800 | 1,800 | 2,800 | 4,250 | 8,010 | 5,640 | 1,550 | 1,120 | 1,510 |
| 9 | 3,770 | 3,060 | 1,700 | 1,700 | 1,700 | 5,000 | 4,420 | 8,610 | 5,140 | 1,430 | 1,150 | 1,510 |
| 10 | 3,580 | 3,050 | 1,700 | 1,600 | 1,700 | 8,000 | 4,490 | 9,030 | 4,700 | 1,380 | 1,270 | 1,500 |
| 11 | 3,400 | 3,040 | 1,700 | 1,600 | 1,600 | 11,000 | 4,450 | 9,310 | 4,380 | 1,360 | 1,330 | 1,450 |
| 12 | 3,260 | 2,990 | 1,700 | 1,500 | 1,600 | 12,600 | 4,420 | 9,390 | 4,220 | 1,350 | 1,310 | 1,340 |
| 13 | 3,130 | 2,940 | 1,700 | 1,500 | 1,600 | 13,400 | 4,390 | 9,170 | 4,010 | 1,340 | 1,290 | 1,250 |
| 14 | 3,000 | 2,880 | 1,600 | 1,400 | 1,500 | 13,700 | 4,370 | 8,710 | 3,820 | 1,350 | 1,260 | 1,210 |
| 15 | 2,880 | 2,800 | 1,600 | 1,400 | 1,500 | 14,000 | 4,360 | 8,050 | 3,670 | 1,400 | 1,220 | 1,190 |
| 16 | 2,750 | 2,720 | 1,600 | 1,400 | 1,400 | 14,100 | 4,590 | 7,390 | 3,550 | 1,440 | 1,210 | 1,160 |
| 17 | 2,590 | 2,650 | 1,600 | 1,400 | 1,400 | 14,000 | 4,960 | 6,840 | 3,430 | 1,440 | 1,210 | 1,140 |
| 18 | 2,440 | 2,580 | 1,600 | 1,400 | 1,300 | 13,700 | 5,330 | 6,290 | 3,320 | 1,400 | 1,200 | 1,130 |
| 19 | 2,260 | 2,500 | 1,600 | 1,600 | 1,300 | 13,200 | 5,670 | 5,770 | 3,230 | 1,350 | 1,210 | 1,090 |
| 20 | 2,090 | 2,410 | 1,600 | 1,900 | 1,300 | 12,500 | 6,240 | 5,240 | 3,130 | 1,290 | 1,270 | 1,040 |
| 21 | 1,970 | 2,280 | 1,600 | 2,200 | 1,300 | 11,300 | 7,000 | 4,750 | 3,030 | 1,200 | 1,320 | 1,020 |
| 22 | 1,910 | 2,150 | 1,600 | 2,500 | 1,200 | 10,100 | 7,370 | 4,390 | 2,930 | 1,170 | 1,380 | 1,110 |
| 23 | 2,140 | 2,040 | 1,600 | 2,700 | 1,200 | 8,870 | 7,440 | 4,140 | 2,810 | 1,170 | 1,420 | 1,160 |
| 24 | 2,520 | 1,920 | 1,600 | 2,800 | 1,200 | 7,850 | 7,260 | 3,940 | 2,750 | 1,190 | 1,400 | 1,280 |
| 25 | 2,750 | 1,870 | 1,600 | 2,800 | 1,200 | 7,100 | 6,940 | 3,880 | 2,640 | 1,240 | 1,360 | 1,350 |
| 26 | 2,900 | 1,800 | 1,600 | 2,700 | 1,200 | 6,480 | 6,610 | 3,850 | 2,560 | 1,290 | 1,320 | 1,340 |
| 27 | 2,990 | 1,700 | 1,600 | 2,700 | 1,200 | 5,920 | 6,130 | 3,850 | 2,510 | 1,370 | 1,290 | 1,350 |
| 28 | 3,050 | 1,700 | 1,600 | 2,600 | 1,200 | 5,110 | 5,660 | 4,410 | 2,450 | 1,420 | 1,270 | 1,370 |
| 29 | 3,040 | 1,690 | 1,600 | 2,500 | ------ | 4,630 | 5,210 | 5,330 | 2,380 | 1,430 | 1,270 | 1,400 |
| 30 | 3,020 | 1,600 | 1,600 | 2,500 | ------ | 4,390 | 4,800 | 6,610 | 2,310 | 1,400 | 1,220 | 1,380 |
| 31 | 2,990 | ------ | 1,600 | 2,400 | ------ | 4,200 | ------ | 7,780 | ------ | 1,340 | 1,170 | ------ |
| TOTAL | 96,070 | 76,290 | 50,400 | 61,000 | 43,800 | 234,550 | 154,480 | 195,370 | 132,820 | 45,880 | 39,150 | 38,170 |
| MEAN | 3,099 | 2,543 | 1,626 | 1,968 | 1,564 | 7,566 | 5,147 | 6,302 | 4,427 | 1,480 | 1,263 | 1,272 |
| MAX | 4,080 | 3,070 | 1,700 | 2,800 | 2,300 | 14,100 | 7,440 | 9,390 | 8,760 | 2,230 | 1,420 | 1,520 |
| MIN | 1,910 | 1,600 | 1,600 | 1,400 | 1,200 | 1,200 | 3,930 | 3,850 | 2,310 | 1,170 | 1,120 | 1,020 |
| CFSM | 1.38 | 1.14 | .73 | .88 | .70 | 3.38 | 2.30 | 2.81 | 1.98 | .66 | .56 | .57 |
| IN. | 1.68 | 1.27 | .84 | 1.01 | .73 | 3.90 | 2.56 | 3.24 | 2.21 | .76 | .65 | .63 |

CAL YR 1972 TOTAL 776,849 MEAN 2,123 MAX 10,200 MIN 880 CFSM .95 IN 12.90
WTR YR 1973 TOTAL 1,167,900 MEAN 3,200 MAX 14,100 MIN 1,020 CFSM 1.43 IN 19.40

## 04080950 Emmons Creek near Rural, Wis.

LOCATION.--Lat 44°18'55", long 89°11'34", in NW¼ NE¼ sec.8, T.21 N., R.11 E., Waupaca County, 0.8 mi (1.3 km) upstream from Long Lake and 1.8 mi (2.9 km) west of Rural.

DRAINAGE AREA.--27 $mi^2$ (70 $km^2$), approximately; the ground-water drainage area is about one-third larger than the surface-water drainage area.

PERIOD OF RECORD.--May 1968 to current year.

GAGE.--Nonrecording gage and crest-stage gage. Altitude of gage is 890 ft (270 m), by barometer.

AVERAGE DISCHARGE.--5 years, 26.6 $ft^3/s$ (0.753 $m^3/s$), 13.38 in/yr (340 mm/yr).

EXTREMES.--Current year: Maximum discharge, 350 $ft^3/s$ (9.91 $m^3/s$) Mar. 7, gage height, 5.46 ft (1.664 m) from rating curve extended above 140 $ft^3/s$ (3.96 $m^3/s$) on basis of slope-area measurement of peak flow; minimum daily, 24 $ft^3/s$ (0.68 $m^3/s$) Jan. 6, Feb. 12, 13, 15-18, 20-24, 28.

Period of record: Maximum discharge, 350 $ft^3/s$ (9.91 $m^3/s$) Mar. 7, 1973, gage height, 5.46 ft (1.664 m) from rating curve extended above 140 $ft^3/s$ (3.96 $m^3/s$) on basis of slope-area measurement of peak flow; minimum, 21 $ft^3/s$ (0.59 $m^3/s$) Aug. 30, 1969, Feb. 14, Aug. 3, 8, 10, 15-17, 20-28, 1970, July 25, 1972.

REMARKS.--Records good.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 7, 8, 11, 12, 16, 17, Jan. 5, 7, 8, 10-12, Feb. 9, 16.)

| | | | |
|---|---|---|---|
| 2.2 | 23 | 3.5 | 71 |
| 2.5 | 32 | 4.0 | 110 |
| 3.0 | 48 | 5.0 | 242 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 27 | 28 | 26 | 27 | 26 | 25 | 37 | 50 | 36 | 31 | 29 | 30 |
| 2 | 27 | 41 | 26 | 26 | 28 | 25 | 32 | 70 | 34 | 31 | 30 | 29 |
| 3 | 28 | 30 | 26 | 26 | 27 | 26 | 31 | 37 | 36 | 31 | 29 | 30 |
| 4 | 28 | 28 | 26 | 26 | 26 | 28 | 32 | 35 | 35 | 34 | 28 | 30 |
| 5 | 27 | 28 | 26 | 25 | 26 | 27 | 30 | 34 | 35 | 31 | 28 | 30 |
| 6 | 28 | 28 | 26 | 24 | 25 | 28 | 30 | 34 | 34 | 28 | 28 | 28 |
| 7 | 27 | 29 | 26 | 25 | 25 | 203 | 35 | 40 | 34 | 28 | 34 | 28 |
| 8 | 27 | 27 | 26 | 25 | 25 | 54 | 31 | 46 | 34 | 28 | 29 | 29 |
| 9 | 26 | 27 | 26 | 25 | 25 | 36 | 32 | 37 | 33 | 29 | 30 | 28 |
| 10 | 27 | 27 | 26 | 25 | 25 | 34 | 32 | 36 | 35 | 30 | 29 | 28 |
| 11 | 27 | 27 | 26 | 25 | 25 | 34 | 31 | 36 | 33 | 30 | 30 | 28 |
| 12 | 26 | 26 | 26 | 25 | 24 | 43 | 32 | 36 | 39 | 30 | 31 | 28 |
| 13 | 26 | 26 | 26 | 25 | 24 | 35 | 31 | 34 | 34 | 28 | 30 | 28 |
| 14 | 26 | 26 | 25 | 25 | 25 | 52 | 32 | 34 | 33 | 29 | 29 | 28 |
| 15 | 26 | 26 | 25 | 25 | 24 | 39 | 32 | 34 | 33 | 28 | 29 | 28 |
| 16 | 26 | 26 | 25 | 25 | 24 | 32 | 54 | 33 | 32 | 29 | 29 | 28 |
| 17 | 27 | 27 | 25 | 25 | 24 | 31 | 35 | 33 | 34 | 29 | 29 | 32 |
| 18 | 27 | 26 | 25 | 28 | 24 | 31 | 33 | 33 | 33 | 28 | 29 | 30 |
| 19 | 27 | 26 | 25 | 30 | 25 | 30 | 32 | 33 | 32 | 28 | 32 | 28 |
| 20 | 26 | 26 | 25 | 28 | 24 | 31 | 32 | 33 | 32 | 28 | 31 | 28 |
| 21 | 27 | 26 | 25 | 27 | 24 | 30 | 36 | 33 | 32 | 28 | 30 | 28 |
| 22 | 27 | 26 | 25 | 27 | 24 | 30 | 34 | 38 | 32 | 29 | 29 | 36 |
| 23 | 42 | 26 | 25 | 27 | 24 | 30 | 33 | 34 | 32 | 28 | 33 | 30 |
| 24 | 28 | 26 | 25 | 26 | 24 | 30 | 32 | 33 | 33 | 36 | 31 | 29 |
| 25 | 27 | 26 | 25 | 26 | 25 | 30 | 32 | 54 | 33 | 31 | 30 | 33 |
| 26 | 27 | 26 | 25 | 25 | 25 | 30 | 31 | 36 | 33 | 29 | 30 | 30 |
| 27 | 27 | 26 | 25 | 26 | 25 | 30 | 31 | 36 | 32 | 29 | 30 | 29 |
| 28 | 27 | 26 | 26 | 26 | 24 | 30 | 31 | 65 | 33 | 28 | 30 | 29 |
| 29 | 27 | 26 | 28 | 26 | ------ | 30 | 31 | 43 | 32 | 28 | 29 | 30 |
| 30 | 26 | 26 | 35 | 25 | ------ | 29 | 31 | 36 | 31 | 31 | 28 | 29 |
| 31 | 28 | ------ | 29 | 25 | ------ | 29 | ------ | 36 | ------ | 29 | 29 | ------ |
| TOTAL | 849 | 815 | 806 | 801 | 696 | 1,172 | 988 | 1,202 | 1,004 | 914 | 922 | 879 |
| MEAN | 27.4 | 27.2 | 26.0 | 25.8 | 24.9 | 37.8 | 32.9 | 38.8 | 33.5 | 29.5 | 29.7 | 29.3 |
| MAX | 42 | 41 | 35 | 30 | 28 | 203 | 54 | 70 | 39 | 36 | 34 | 36 |
| MIN | 26 | 26 | 25 | 24 | 24 | 25 | 30 | 33 | 31 | 28 | 28 | 28 |
| CFSM | 1.01 | 1.01 | .96 | .96 | .92 | 1.40 | 1.22 | 1.44 | 1.24 | 1.09 | 1.10 | 1.09 |
| IN. | 1.17 | 1.12 | 1.11 | 1.10 | .96 | 1.61 | 1.36 | 1.66 | 1.38 | 1.26 | 1.27 | 1.21 |

CAL YR 1972 TOTAL 9,393 MEAN 25.7 MAX 50 MIN 21 CFSM .95 IN 12.94
WTR YR 1973 TOTAL 11,040 MEAN 30.3 MAX 203 MIN 24 CFSM 1.12 IN 15.22

## 04082500 Lake Winnebago at Oshkosh, Wis.

LOCATION.--Lat 44°00'41", long 88°32'01", in SW¼ sec.24, T.18 N., R.16 E., Winnebago County, in mouth of the Upper Fox River at Chicago and North Western Railway bridge, 0.2 mi (0.3 km) downstream from Main Street bridge in Oshkosh and 18 mi (29 km) south of Menasha Dam and outlet.

DRAINAGE AREA.--6,030 mi² (15,600 km²), approximately, at lake outlet at Menasha Dam.

PERIOD OF RECORD.--October 1938 to current year in reports of Geological Survey. Records from 1857 to 1938 in files of Corps of Engineers. A report on Fox River by Corps of Engineers, published as House Document No. 146, 67th Congress, 2nd session, contains semi-monthly records of inflow of Lake Winnebago for the period 1896-1917.

GAGE.--Nonrecording gage read once daily. Datum of gage is 745.05 ft (227.091 m) above mean tide at New York City (levels by Corps of Engineers). Prior to 1882, lake levels were referred to Deuchman gage at Lake outlet of Menasha Dam. Datum of Deuchman gage, which is still in existence, is 745.00 ft (227.076 m) above mean tide at New York City.

EXTREMES.--Current year: Maximum gage height observed, 3.92 ft (1.19 m) Mar. 25; minimum observed, 1.36 ft (0.41 m) Mar. 2, 3, 5.

Period of record: Maximum gage height observed, 5.33 ft (1.62 m) (Deuchman gage) Nov. 8, 1881, minimum observed, -2.00 ft (-0.61 m) (Deuchman gage) Nov. 28, 1891.

REMARKS.--Lake elevations controlled by dams at Menasha and Neenah, which are operated in the interest of navigation. Crests of both dams are at elevation 746.73 ft (227.603 m). Present limits of regulation are from 21¼ in. (540 m) above the crest of Menasha Dam to crest during navigation season, plus additional 18 in. (457 mm) below crest during winter. Oshkosh staff gage gives true level of lake, while Deuchman gage readings are affected by loss of head in the channel between lake and dam.

COOPERATION.--Records furnished by Corps of Engineers.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.86 | 2.88 | 2.43 | 2.44 | 2.08 | 1.40 | 3.66 | 3.38 | 3.33 | 3.28 | 2.88 | 2.92 |
| 2 | 2.91 | 2.86 | 2.46 | 2.43 | 2.08 | 1.36 | 3.60 | 3.48 | 3.32 | 3.16 | 2.82 | 2.86 |
| 3 | 2.94 | 2.96 | 2.44 | 2.44 | 2.10 | 1.36 | 3.60 | 3.49 | 3.24 | 3.24 | 2.80 | 2.86 |
| 4 | 2.90 | 2.90 | 2.42 | 2.43 | 2.07 | 1.37 | 3.57 | 3.50 | 3.26 | 3.22 | 2.80 | 2.90 |
| 5 | 2.94 | 2.88 | 2.44 | 2.39 | 2.04 | 1.36 | 3.51 | 3.50 | 3.20 | 3.19 | 2.75 | 2.83 |
| 6 | 2.91 | 2.86 | 2.40 | 2.36 | 2.04 | 1.40 | 3.47 | 3.48 | 3.20 | 3.10 | 2.67 | 2.90 |
| 7 | 2.94 | 2.78 | 2.40 | 2.32 | 2.04 | 1.54 | 3.47 | 3.44 | 3.16 | 3.12 | 2.77 | 2.86 |
| 8 | 2.96 | 2.88 | 2.43 | 2.31 | 2.02 | 1.63 | 3.42 | 3.48 | 3.16 | 3.10 | 2.94 | 2.82 |
| 9 | 2.98 | 2.86 | 2.40 | 2.28 | 1.99 | 1.72 | 3.50 | 3.54 | 3.24 | 3.07 | 2.96 | 2.76 |
| 10 | 2.98 | 2.82 | 2.43 | 2.25 | 1.96 | 1.82 | 3.18 | 3.44 | 3.14 | 3.14 | 2.88 | 2.78 |
| 11 | 3.01 | 2.78 | 2.42 | 2.22 | 1.94 | 2.00 | 3.18 | 3.56 | 3.12 | 3.06 | 2.86 | 2.78 |
| 12 | 3.00 | 2.76 | 2.46 | 2.20 | 1.92 | 2.24 | 3.18 | 3.56 | 3.26 | 3.02 | 2.85 | 2.84 |
| 13 | 2.94 | 2.87 | 2.50 | 2.16 | 1.87 | 2.42 | 3.16 | 3.65 | 3.20 | 2.90 | 2.84 | 2.81 |
| 14 | 2.92 | 2.71 | 2.47 | 2.10 | 1.88 | 2.66 | 3.16 | 3.63 | 3.20 | 2.84 | 2.83 | 2.82 |
| 15 | 2.88 | 2.66 | 2.46 | 2.10 | 1.86 | 2.81 | 3.16 | 3.61 | 3.15 | 2.90 | 2.83 | 2.76 |
| 16 | 2.82 | 2.64 | 2.47 | 2.09 | 1.80 | 3.00 | 3.20 | 3.62 | 3.16 | 2.84 | 2.80 | 2.71 |
| 17 | 2.88 | 2.58 | 2.44 | 2.07 | 1.78 | 3.16 | 3.22 | 3.65 | 2.86 | 2.80 | 2.80 | 2.80 |
| 18 | 2.88 | 2.56 | 2.45 | 2.08 | 1.75 | 3.28 | 3.28 | 3.62 | 3.25 | 2.74 | 2.78 | 2.78 |
| 19 | 2.81 | 2.54 | 2.44 | 2.22 | 1.73 | 3.44 | 3.27 | 3.63 | 3.23 | 2.83 | 2.85 | 2.73 |
| 20 | 2.78 | 2.52 | 2.44 | 2.24 | 1.69 | 3.58 | 3.31 | 3.56 | 3.20 | 2.94 | 2.96 | 2.75 |
| 21 | 2.76 | 2.50 | 2.43 | 2.22 | 1.64 | 3.66 | 3.36 | 3.52 | 3.14 | 2.92 | 2.97 | 2.77 |
| 22 | 2.90 | 2.47 | 2.38 | 2.26 | 1.60 | 3.74 | 3.36 | 3.52 | 3.17 | 2.83 | 2.94 | 2.64 |
| 23 | 2.92 | 2.44 | 2.36 | 2.26 | 1.56 | 3.78 | 3.48 | 3.48 | 3.20 | 2.83 | 2.86 | 2.66 |
| 24 | 2.92 | 2.45 | 2.34 | 2.24 | 1.52 | 3.84 | 3.54 | 3.44 | 3.10 | 2.79 | 2.81 | 2.67 |
| 25 | 2.91 | 2.44 | 2.34 | 2.22 | 1.54 | 3.92 | 3.51 | 3.34 | 3.06 | 2.82 | 2.60 | 2.82 |
| 26 | 2.91 | 2.38 | 2.32 | 2.20 | 1.50 | 3.86 | 3.49 | 3.33 | 3.22 | 2.81 | 2.47 | 2.84 |
| 27 | 2.90 | 2.38 | 2.32 | 2.18 | 1.46 | 3.85 | 3.46 | 3.36 | 3.17 | 2.85 | 2.56 | 2.92 |
| 28 | 2.90 | 2.38 | 2.30 | 2.16 | 1.42 | 3.82 | 3.43 | 3.38 | 3.28 | 2.76 | 2.54 | 2.92 |
| 29 | 2.90 | 2.44 | 2.29 | 2.14 | ------ | 3.78 | 3.48 | 3.36 | 3.28 | 2.76 | 2.51 | 2.94 |
| 30 | 2.90 | 2.40 | 2.34 | 2.10 | ------ | 3.75 | 3.46 | 3.36 | 3.30 | 2.76 | 2.71 | 2.91 |
| 31 | 2.92 | ------ | 2.44 | 2.08 | ------ | 3.73 | ------ | 3.28 | ------ | 2.76 | 2.94 | ------ |
| MEAN | 2.91 | 2.65 | 2.41 | 2.23 | 1.82 | 2.75 | 3.39 | 3.49 | 3.19 | 2.95 | 2.79 | 2.81 |
| MAX | 3.01 | 2.96 | 2.50 | 2.44 | 2.10 | 3.92 | 3.66 | 3.65 | 3.33 | 3.28 | 2.97 | 2.94 |
| MIN | 2.76 | 2.38 | 2.29 | 2.07 | 1.42 | 1.36 | 3.16 | 3.28 | 2.86 | 2.74 | 2.47 | 2.64 |

## 04084500 Fox River at Rapide Croche Dam, near Wrightstown, Wis.

LOCATION.--Lat 44°19'03", long 88°11'50", in SE¼ sec.4, T.21 N., R.19 E., Outagamie County, at Rapide Croche Dam, 2.0 mi (3.2 km) upstream from Wrightstown, and 18 mi (29 km) upstream from mouth.

DRAINAGE AREA.--6,150 mi² (15,930 km²), approximately.

RECORDS AVAILABLE.--March 1896 to September 1917 (monthly discharge only), October 1917 to current year.

GAGE.--Recording headwater and tailwater gages and electric generation are read three times a day and used to compute the discharge records.

AVERAGE DISCHARGE.--77 years, 4,184 ft³/s (118.5 m³/s).

EXTREMES.--Current year: Maximum daily discharge during year, 17,000 ft³/s (481 m³/s) Mar. 29; minimum daily, 1,760 ft³/s (49.8 m³/s) July 22.

Period of record: Maximum daily discharge, 24,000 ft³/s (680 m³/s) Apr. 18, 1952; minimum daily, 138 ft³/s (3.91 m³/s) Aug. 2, 1936.

REMARKS.--Records good. Flow regulated by storage in Lake Winnebago (see p. 60). Daily discharge determined from records of flow through turbines, head, gate openings, and lockages through navigation canal. Usually less than about 5 ft³/s (0.14 m³/s) diverted into basin from Wisconsin River at Portage Canal throughout the year.

COOPERATION.--Figures of daily discharge furnished by Corps of Engineers. Records reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7,740 | 6,600 | 3,150 | 3,880 | 8,620 | 6,840 | 15,800 | 13,800 | 14,900 | 3,980 | 2,160 | 2,590 |
| 2 | 7,680 | 8,140 | 3,140 | 4,940 | 8,580 | 6,620 | 15,500 | 15,300 | 14,700 | 4,750 | 1,770 | 2,600 |
| 3 | 7,400 | 9,040 | 2,590 | 7,440 | 8,240 | 6,460 | 15,300 | 13,900 | 14,700 | 4,320 | 2,100 | 2,490 |
| 4 | 7,650 | 9,210 | 2,480 | 7,520 | 7,650 | 6,300 | 15,200 | 14,600 | 14,600 | 4,210 | 2,130 | 2,540 |
| 5 | 7,540 | 9,120 | 2,420 | 6,100 | 7,620 | 6,420 | 15,000 | 15,200 | 14,900 | 3,970 | 2,220 | 2,670 |
| 6 | 7,560 | 8,940 | 2,060 | 5,540 | 8,420 | 6,490 | 15,000 | 15,000 | 14,500 | 4,430 | 2,330 | 2,370 |
| 7 | 7,500 | 8,740 | 2,500 | 6,250 | 8,440 | 6,650 | 14,800 | 16,100 | 14,800 | 4,280 | 2,300 | 2,280 |
| 8 | 7,620 | 8,520 | 2,740 | 5,640 | 8,620 | 7,500 | 13,800 | 16,400 | 14,600 | 4,180 | 2,660 | 2,130 |
| 9 | 7,280 | 8,510 | 2,470 | 5,820 | 8,330 | 9,500 | 12,400 | 16,200 | 12,600 | 4,060 | 1,920 | 2,170 |
| 10 | 7,620 | 8,450 | 2,680 | 5,640 | 8,320 | 8,660 | 12,100 | 15,400 | 12,700 | 4,040 | 2,500 | 2,210 |
| 11 | 7,670 | 8,260 | 2,760 | 5,980 | 8,020 | 11,600 | 14,500 | 15,600 | 12,600 | 3,790 | 2,090 | 2,200 |
| 12 | 6,400 | 8,200 | 2,320 | 6,010 | 7,940 | 10,100 | 14,500 | 16,000 | 12,000 | 4,380 | 2,170 | 2,170 |
| 13 | 7,040 | 7,600 | 3,040 | 6,040 | 7,860 | 11,700 | 12,400 | 15,700 | 9,790 | 4,140 | 2,220 | 2,100 |
| 14 | 7,330 | 6,510 | 3,220 | 6,500 | 7,660 | 15,500 | 9,780 | 16,100 | 9,580 | 3,960 | 2,150 | 2,160 |
| 15 | 7,010 | 7,640 | 3,180 | 6,000 | 6,900 | 14,000 | 11,600 | 16,500 | 8,780 | 3,720 | 2,100 | 2,040 |
| 16 | 7,720 | 8,520 | 3,040 | 5,340 | 8,300 | 14,600 | 12,300 | 16,100 | 6,650 | 3,400 | 2,230 | 1,980 |
| 17 | 6,840 | 9,240 | 3,030 | 5,020 | 8,280 | 13,800 | 11,800 | 16,000 | 6,700 | 1,910 | 2,400 | 1,930 |
| 18 | 6,880 | 8,410 | 3,120 | 6,400 | 7,960 | 14,600 | 11,300 | 16,700 | 6,930 | 2,360 | 2,360 | 1,870 |
| 19 | 6,840 | 8,280 | 4,270 | 9,480 | 7,820 | 15,700 | 11,000 | 16,000 | 6,790 | 2,210 | 2,530 | 2,220 |
| 20 | 7,280 | 8,080 | 4,400 | 6,480 | 7,520 | 12,800 | 11,200 | 15,600 | 6,440 | 2,200 | 2,470 | 2,040 |
| 21 | 7,100 | 7,450 | 3,780 | 6,320 | 7,340 | 15,000 | 11,600 | 15,500 | 6,250 | 1,980 | 2,240 | 1,990 |
| 22 | 6,700 | 6,900 | 4,280 | 7,020 | 7,060 | 15,500 | 11,500 | 15,300 | 5,680 | 1,760 | 2,240 | 2,600 |
| 23 | 6,870 | 6,070 | 3,900 | 7,040 | 6,990 | 15,800 | 11,700 | 14,700 | 4,270 | 1,870 | 2,530 | 2,240 |
| 24 | 6,770 | 5,900 | 3,080 | 8,440 | 6,860 | 15,900 | 13,000 | 14,600 | 5,030 | 2,290 | 2,380 | 2,210 |
| 25 | 7,840 | 5,760 | 3,920 | 8,000 | 6,940 | 16,000 | 13,300 | 15,200 | 4,940 | 2,360 | 2,310 | 2,430 |
| 26 | 8,060 | 5,620 | 4,800 | 8,440 | 7,070 | 16,400 | 13,400 | 15,200 | 4,660 | 2,300 | 2,370 | 2,300 |
| 27 | 7,580 | 5,380 | 4,040 | 9,380 | 7,070 | 16,400 | 12,900 | 14,400 | 4,280 | 2,270 | 2,520 | 2,380 |
| 28 | 7,520 | 2,990 | 3,480 | 9,170 | 6,920 | 16,400 | 12,900 | 15,400 | 4,770 | 2,310 | 2,540 | 2,110 |
| 29 | 7,340 | 3,440 | 4,120 | 9,220 | ------ | 17,000 | 13,100 | 14,900 | 4,440 | 2,080 | 2,530 | 2,150 |
| 30 | 6,140 | 3,560 | 4,580 | 8,370 | ------ | 16,600 | 13,300 | 15,100 | 4,560 | 2,330 | 3,000 | 2,060 |
| 31 | 6,600 | ------ | 4,580 | 8,500 | ------ | 16,400 | ------ | 14,800 | ------ | 2,190 | 2,140 | ------ |
| TOTAL | 226,120 | 219,180 | 107,010 | 213,390 | 217,350 | 345,740 | 392,380 | 477,300 | 278,140 | 98,030 | 71,610 | 67,230 |
| MEAN | 7,294 | 7,306 | 3,452 | 6,884 | 7,763 | 12,440 | 13,080 | 15,400 | 9,271 | 3,162 | 2,310 | 2,241 |
| MAX | 8,060 | 9,290 | 4,400 | 9,480 | 8,620 | 17,000 | 15,400 | 16,700 | 14,900 | 4,750 | 3,000 | 2,670 |
| MIN | 6,140 | 2,990 | 2,500 | 3,880 | 6,860 | 6,300 | 9,780 | 13,800 | 4,270 | 1,760 | 1,770 | 1,870 |

CAL YR 1972 TOTAL 1,783,400 MEAN 4,873 MAX 13,200 MIN 1,340
WTR YR 1973 TOTAL 2,753,460 MEAN 7,544 MAX 17,000 MIN 1,760

## 04085200 Kewaunee River near Kewaunee, Wis.

LOCATION.--Lat 44°27'30", long 87°33'23", in SW¼ sec.14, T.23 N., R.24 E., Kewaunee County, on left bank just downstream from bridge on County Trunk F, 2.3 mi (3.7 km) west of Kewaunee, and about 7.0 mi (11.3 km) upstream from mouth.

DRAINAGE AREA.--129 $mi^2$ (334 $km^2$).

PERIOD OF RECORD.--Annual maximum, water years 1958-65, and occasional low-flow measurements, water years 1963-64. September 1964 to current year. No winter records for water years 1965 and 1966.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is about 590 ft (180 m), from topographic map. Apr. 3, 1957, to Sept. 2, 1964, crest-stage gage only at same site and datum.

AVERAGE DISCHARGE.--7 years, 81.0 $ft^3/s$ (2.29 $m^3/s$), 8.53 in/yr (217 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,540 $ft^3/s$ (100 $m^3/s$) May 28, gage height, 14.10 ft (4.298 m); minimum discharge, 17 $ft^3/s$ (0.48 $m^3/s$) Dec. 2, gage height, 8.28 ft (2.524 m), result of freezeup.
Period of record: Maximum discharge, 6,500 $ft^3/s$ (184 $m^3/s$) Mar. 30, 1960, gage height, 16.03 ft (4.886 m); minimum recorded, 4.5 $ft^3/s$ (0.13 $m^3/s$) Nov. 3, 4, 1966, gage height, 8.14 ft (2.481 m).

REMARKS.--Records good except those for winter periods, which are fair.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 29 to Mar. 5.)

| Oct. 1 to May 27 | | | | May 28 to Sept. 30 | | | |
|---|---|---|---|---|---|---|---|
| 8.3 | 18 | 10.0 | 302 | 8.7 | 19 | 11.0 | 580 |
| 8.5 | 36 | 11.0 | 683 | 9.0 | 43 | 12.0 | 1,190 |
| 9.0 | 98 | 12.0 | 1,260 | 9.5 | 110 | 13.0 | 2,120 |
| 9.5 | 181 | | | 10.0 | 219 | 14.0 | 3,390 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 213 | 64 | 36 | 220 | 180 | 45 | 74 | 168 | 265 | 182 | 27 | 25 |
| 2 | 143 | 184 | 34 | 170 | 450 | 180 | 94 | 645 | 206 | 76 | 28 | 25 |
| 3 | 113 | 198 | 33 | 120 | 300 | 180 | 148 | 480 | 186 | 99 | 26 | 25 |
| 4 | 92 | 152 | 32 | 98 | 200 | 350 | 229 | 243 | 177 | 88 | 25 | 47 |
| 5 | 77 | 110 | 32 | 78 | 160 | 250 | 238 | 157 | 151 | 61 | 25 | 45 |
| 6 | 78 | 94 | 31 | 68 | 130 | 277 | 172 | 126 | 129 | 51 | 24 | 35 |
| 7 | 64 | 87 | 30 | 56 | 110 | 1,040 | 296 | 127 | 114 | 46 | 25 | 30 |
| 8 | 57 | 92 | 30 | 54 | 90 | 747 | 326 | 389 | 102 | 42 | 25 | 28 |
| 9 | 52 | 90 | 29 | 53 | 70 | 302 | 172 | 737 | 96 | 39 | 28 | 28 |
| 10 | 47 | 78 | 29 | 52 | 64 | 238 | 98 | 424 | 86 | 39 | 29 | 27 |
| 11 | 45 | 73 | 28 | 52 | 60 | 934 | 108 | 291 | 88 | 38 | 27 | 26 |
| 12 | 43 | 67 | 27 | 51 | 64 | 1,050 | 168 | 282 | 198 | 39 | 25 | 25 |
| 13 | 42 | 61 | 27 | 51 | 60 | 488 | 382 | 159 | 230 | 44 | 25 | 25 |
| 14 | 41 | 57 | 27 | 51 | 40 | 728 | 557 | 132 | 157 | 39 | 28 | 25 |
| 15 | 40 | 66 | 27 | 50 | 30 | 794 | 540 | 115 | 105 | 37 | 26 | 25 |
| 16 | 39 | 58 | 27 | 52 | 26 | 400 | 460 | 104 | 94 | 35 | 26 | 25 |
| 17 | 38 | 49 | 27 | 68 | 26 | 251 | 488 | 101 | 90 | 33 | 44 | 25 |
| 18 | 36 | 48 | 29 | 500 | 26 | 155 | 258 | 91 | 85 | 32 | 74 | 26 |
| 19 | 35 | 47 | 30 | 1,000 | 27 | 159 | 179 | 92 | 79 | 33 | 97 | 26 |
| 20 | 34 | 46 | 31 | 700 | 27 | 135 | 168 | 94 | 72 | 30 | 112 | 26 |
| 21 | 45 | 45 | 32 | 500 | 28 | 119 | 476 | 84 | 66 | 30 | 74 | 25 |
| 22 | 71 | 44 | 33 | 450 | 28 | 110 | 442 | 77 | 61 | 30 | 51 | 91 |
| 23 | 414 | 42 | 34 | 740 | 29 | 104 | 236 | 78 | 76 | 29 | 39 | 78 |
| 24 | 600 | 40 | 34 | 620 | 29 | 102 | 154 | 78 | 91 | 29 | 35 | 52 |
| 25 | 332 | 42 | 35 | 500 | 30 | 100 | 124 | 143 | 80 | 29 | 34 | 46 |
| 26 | 185 | 46 | 35 | 450 | 31 | 95 | 106 | 256 | 74 | 29 | 32 | 47 |
| 27 | 129 | 49 | 36 | 400 | 33 | 87 | 95 | 229 | 67 | 28 | 31 | 42 |
| 28 | 106 | 47 | 37 | 330 | 37 | 81 | 98 | 2,630 | 119 | 28 | 30 | 38 |
| 29 | 87 | 40 | 39 | 280 | ------ | 78 | 77 | 1,660 | 193 | 28 | 28 | 36 |
| 30 | 76 | 38 | 90 | 230 | ------ | 76 | 76 | 560 | 152 | 27 | 27 | 32 |
| 31 | 69 | ------ | 200 | 200 | ------ | 70 | ------ | 323 | ------ | 27 | 25 | ------ |
| TOTAL | 3,435 | 2,066 | 1,201 | 8,220 | 2,385 | 9,645 | 6,959 | 10,986 | 3,689 | 1,317 | 1,152 | 1,056 |
| MEAN | 111 | 68.9 | 38.7 | 265 | 85.2 | 311 | 232 | 354 | 123 | 42.5 | 37.2 | 35.2 |
| MAX | 600 | 198 | 200 | 1,000 | 450 | 1,050 | 557 | 2,630 | 265 | 182 | 112 | 91 |
| MIN | 34 | 38 | 27 | 50 | 26 | 45 | 74 | 77 | 61 | 27 | 24 | 25 |
| CFSM | .86 | .53 | .30 | 2.05 | .66 | 2.41 | 1.80 | 2.74 | .95 | .33 | .29 | .27 |
| IN. | .99 | .60 | .35 | 2.37 | .69 | 2.78 | 2.01 | 3.17 | 1.06 | .38 | .33 | .30 |

CAL YR 1972 TOTAL 41,015 MEAN 112 MAX 2,100 MIN 13 CFSM .87 IN 11.83
WTR YR 1973 TOTAL 52,111 MEAN 143 MAX 2,630 MIN 24 CFSM 1.11 IN 15.03

PEAK DISCHARGE (BASE, 800 $FT^3/S$, REVISED)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 1-19 | - | - | a1,200 | 3-14 | 2230 | 12.05 | 1,300 |
| 1-23 | - | - | a 840 | 5- 9 | 0700 | 11.47 | 928 |
| 3- 7 | 2000 | 12.65 | 1,800 | 5-28 | 1500 | 14.10 | 3,540 |
| 3-11 | 2030 | 12.41 | 1,580 | | | | |

a About.

## 04085281 East Twin River at Mishicot, Wis.

**LOCATION.**--Lat 44°14'16", long 87°38'11", in NW¼ NW¼ sec.4, T.20 N., R.24 E., Manitowoc County, on right bank 500 ft (152 m) downstream from bridge on State Highway 147, at Mishicot, 0.8 mi (1.3 km) upstream from Johnson Creek, and 9.8 mi (15.8 km) upstream from mouth.

**DRAINAGE AREA.**--111 $mi^2$ (287 $km^2$).

**PERIOD OF RECORD.**--July 1972 to current year.

**GAGE.**--Water-stage recorder. Datum of gage is 584.72 ft (178.223 m) above mean sea level.

**EXTREMES.**--July to September 1972: Maximum discharge during period, 492 $ft^3/s$ (13.9 $m^3/s$) Aug. 27, gage height, 7.76 ft (2.365 m); minimum, 13 $ft^3/s$ (0.37 $m^3/s$) Aug. 1,2, gage height, 3.89 ft (1.186 m). Water year 1973: Maximum discharge, 3,090 $ft^3/s$ (87.5 $m^3/s$) May 28, gage height, 13.19 ft (4.020 m); minimum, 17 $ft^3/s$ (0.48 $m^3/s$) Aug. 25, gage height, 4.02 ft (1.225 m).

**REMARKS.**--Records good except those for winter periods, which are fair. Occasional regulation caused by recreation dam 0.3 mi (0.5 km) upstream.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 3 to Jan. 18, Feb. 8-28.)

| | | | |
|---|---|---|---|
| 3.9 | 13 | 6.0 | 199 |
| 4.2 | 24 | 8.0 | 512 |
| 4.5 | 35 | 10.0 | 1,080 |
| 4.8 | 57 | 12.0 | 2,140 |
| 5.3 | 109 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | 13 | 71 |
| 2 | | | | | | | | | | | 17 | 104 |
| 3 | | | | | | | | | | | 24 | 88 |
| 4 | | | | | | | | | | | 20 | 60 |
| 5 | | | | | | | | | | | 18 | 47 |
| 6 | | | | | | | | | | | 18 | 43 |
| 7 | | | | | | | | | | | 33 | 44 |
| 8 | | | | | | | | | | | 48 | 39 |
| 9 | | | | | | | | | | | 37 | 34 |
| 10 | | | | | | | | | | | 29 | 30 |
| 11 | | | | | | | | | | | 26 | 30 |
| 12 | | | | | | | | | | | 27 | 31 |
| 13 | | | | | | | | | | | 25 | 36 |
| 14 | | | | | | | | | | | 22 | 40 |
| 15 | | | | | | | | | | | 20 | 38 |
| 16 | | | | | | | | | | | 19 | 34 |
| 17 | | | | | | | | | | | 247 | 34 |
| 18 | | | | | | | | | | | 261 | 68 |
| 19 | | | | | | | | | | | 221 | 105 |
| 20 | | | | | | | | | | | 115 | 97 |
| 21 | | | | | | | | | | | 68 | 96 |
| 22 | | | | | | | | | | | 49 | 97 |
| 23 | | | | | | | | | | | 40 | 77 |
| 24 | | | | | | | | | | | 42 | 61 |
| 25 | | | | | | | | | | | 113 | 59 |
| 26 | | | | | | | | | | 16 | 207 | 94 |
| 27 | | | | | | | | | | 17 | 410 | 116 |
| 28 | | | | | | | | | | 16 | 300 | 101 |
| 29 | | | | | | | | | | 16 | 198 | 155 |
| 30 | | | | | ------ | | ------ | | ------ | 15 | 103 | 171 |
| 31 | | ------ | | | ------ | | | | | 14 | 67 | ------ |
| TOTAL | | | | | | | | | | | 2,487 | 2,100 |
| MEAN | | | | | | | | | | | 93.1 | 70.0 |
| MAX | | | | | | | | | | | 410 | 171 |
| MIN | | | | | | | | | | | 13 | 30 |
| CFSM | | | | | | | | | | | .84 | .63 |
| IN. | | | | | | | | | | | .97 | .70 |

04085281 East Twin River at Mishicot, Wis.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 163 | 55 | 35 | 74 | 93 | 40 | 76 | 162 | 380 | 70 | 21 | 22 |
| 2 | 107 | 78 | 33 | 78 | 254 | 67 | 82 | 403 | 250 | 62 | 22 | 22 |
| 3 | 79 | 142 | 31 | 72 | 221 | 222 | 113 | 424 | 160 | 78 | 22 | 22 |
| 4 | 66 | 134 | 30 | 66 | 195 | 354 | 154 | 307 | 130 | 56 | 20 | 26 |
| 5 | 58 | 109 | 28 | 60 | 154 | 302 | 176 | 192 | 110 | 46 | 19 | 33 |
| 6 | 53 | 85 | 27 | 52 | 125 | 350 | 169 | 142 | 98 | 40 | 18 | 31 |
| 7 | 49 | 75 | 26 | 43 | 114 | 600 | 253 | 127 | 90 | 37 | 19 | 26 |
| 8 | 45 | 77 | 26 | 37 | 100 | 720 | 272 | 257 | 84 | 35 | 21 | 24 |
| 9 | 43 | 73 | 25 | 34 | 80 | 560 | 217 | 362 | 76 | 33 | 22 | 24 |
| 10 | 40 | 68 | 25 | 32 | 74 | 400 | 99 | 362 | 70 | 31 | 21 | 23 |
| 11 | 39 | 64 | 25 | 31 | 45 | 640 | 110 | 253 | 74 | 29 | 21 | 22 |
| 12 | 37 | 60 | 24 | 30 | 41 | 620 | 159 | 183 | 140 | 34 | 20 | 21 |
| 13 | 35 | 55 | 24 | 30 | 39 | 550 | 233 | 148 | 180 | 35 | 20 | 21 |
| 14 | 34 | 52 | 24 | 30 | 38 | 560 | 383 | 122 | 120 | 33 | 22 | 21 |
| 15 | 33 | 50 | 24 | 30 | 37 | 620 | 505 | 107 | 86 | 29 | 25 | 21 |
| 16 | 33 | 48 | 24 | 30 | 37 | 497 | 499 | 95 | 78 | 28 | 30 | 21 |
| 17 | 31 | 45 | 24 | 31 | 36 | 320 | 468 | 85 | 72 | 27 | 36 | 22 |
| 18 | 31 | 46 | 24 | 130 | 36 | 216 | 357 | 78 | 66 | 25 | 34 | 25 |
| 19 | 30 | 45 | 25 | 459 | 35 | 178 | 244 | 84 | 62 | 24 | 93 | 25 |
| 20 | 30 | 44 | 25 | 451 | 35 | 151 | 197 | 90 | 56 | 25 | 89 | 24 |
| 21 | 34 | 42 | 26 | 437 | 35 | 129 | 384 | 81 | 52 | 24 | 41 | 25 |
| 22 | 49 | 42 | 26 | 396 | 36 | 115 | 459 | 73 | 50 | 24 | 30 | 84 |
| 23 | 147 | 39 | 27 | 466 | 36 | 107 | 345 | 69 | 60 | 23 | 28 | 95 |
| 24 | 141 | 40 | 27 | 439 | 36 | 74 | 211 | 72 | 70 | 22 | 27 | 63 |
| 25 | 165 | 40 | 28 | 352 | 36 | 92 | 151 | 131 | 64 | 23 | 25 | 46 |
| 26 | 178 | 44 | 29 | 238 | 36 | 102 | 122 | 231 | 51 | 24 | 26 | 52 |
| 27 | 128 | 47 | 30 | 198 | 37 | 94 | 103 | 259 | 51 | 24 | 25 | 51 |
| 28 | 92 | 46 | 32 | 163 | 37 | 85 | 95 | 1,940 | 79 | 22 | 24 | 41 |
| 29 | 75 | 38 | 34 | 152 | ------ | 82 | 81 | 2,060 | 116 | 22 | 23 | 36 |
| 30 | 64 | 41 | 50 | 114 | ------ | 80 | 77 | 671 | 98 | 22 | 22 | 34 |
| 31 | 59 | ------ | 70 | 85 | ------ | 78 | ------ | 502 | ------ | 22 | 23 | ------ |
| TOTAL | 2,167 | 1,825 | 908 | 4,940 | 2,080 | 9,320 | 6,794 | 10,271 | 3,073 | 1,029 | 869 | 1,003 |
| MEAN | 69.9 | 60.8 | 29.3 | 156 | 74.3 | 301 | 226 | 331 | 102 | 33.2 | 28.7 | 33.4 |
| MAX | 178 | 142 | 78 | 466 | 254 | 820 | 505 | 2,060 | 380 | 78 | 93 | 95 |
| MIN | 30 | 38 | 24 | 30 | 35 | 40 | 76 | 69 | 50 | 22 | 18 | 21 |
| CFSM | .63 | .55 | .26 | 1.41 | .67 | 2.71 | 2.04 | 2.98 | .92 | .30 | .26 | .30 |
| IN. | .73 | .61 | .30 | 1.62 | .70 | 3.12 | 2.28 | 3.44 | 1.03 | .34 | .30 | .34 |

WTR YR 1973 TOTAL 44,199 MEAN 121 MAX 2,060 MIN 18 CFSM 1.09 IN 14.81

## STREAMS TRIBUTARY TO LAKE MICHIGAN

### 04085427 Manitowoc River at Manitowoc, Wis.

LOCATION.--Lat 44°06'26", long 87°42'55", in NE¼ NW¼ sec.23, T.19 N., R.23 E., Manitowoc County, on right bank 300 ft (91 m) upstream from bridge on County Highway JJ, just west of the Manitowoc city limits and 6.6 mi (10.6 km) upstream from mouth.

DRAINAGE AREA.--530 $mi^2$ (1,373 $km^2$)

PERIOD OF RECORD.--July 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 610.12 ft (185.965 m) above mean sea level.

EXTREMES.--July to September 1972: Maximum discharge during period, 410 $ft^3/s$ (11.[illegible] $m^3/s$) Sept. 26, gage height, 5.72 ft (1.743 m); minimum, 45 $ft^3/s$ (1.27 $m^3/s$) Aug. 1, gage height, 4.09 ft (1.247 m).

Water year 1973: Maximum discharge, 3,140 $ft^3/s$ (88.9 $m^3/s$) Mar. 7, gage height, 9.67 ft (2.947 m); minimum, 24 $ft^3/s$ (0.68 $m^3/s$) Sept. 14, 15, 16, 17, gage height, 3.92 ft (1.195 m).

REMARKS.--Records good except those for winter periods, which are fair.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 1 to Mar. 6.)

| July 26, 1972 to Mar. 13, 1973 | | | | Mar. 14 to Sept. 30, 1973 | | | |
|---|---|---|---|---|---|---|---|
| 4.1 | 47 | 6.0 | 511 | 3.9 | 23 | 6.0 | 590 |
| 4.5 | 115 | 7.0 | 1,010 | 4.2 | 69 | 7.0 | 1,080 |
| 5.0 | 215 | 8.0 | 1,640 | 4.6 | 150 | 9.0 | 2,490 |
| | | | | 5.0 | 248 | 10.0 | 3,500 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | 48 | 157 |
| 2 | | | | | | | | | | | 66 | 164 |
| 3 | | | | | | | | | | | 64 | 147 |
| 4 | | | | | | | | | | | 63 | 140 |
| 5 | | | | | | | | | | | 68 | 133 |
| 6 | | | | | | | | | | | 70 | 137 |
| 7 | | | | | | | | | | | 84 | 143 |
| 8 | | | | | | | | | | | 105 | 128 |
| 9 | | | | | | | | | | | 130 | 116 |
| 10 | | | | | | | | | | | 129 | 108 |
| 11 | | | | | | | | | | | 131 | 103 |
| 12 | | | | | | | | | | | 127 | 101 |
| 13 | | | | | | | | | | | 120 | 113 |
| 14 | | | | | | | | | | | 111 | 119 |
| 15 | | | | | | | | | | | 99 | 116 |
| 16 | | | | | | | | | | | 97 | 113 |
| 17 | | | | | | | | | | | 143 | 108 |
| 18 | | | | | | | | | | | 156 | 196 |
| 19 | | | | | | | | | | | 146 | 206 |
| 20 | | | | | | | | | | | 132 | 198 |
| 21 | | | | | | | | | | | 128 | 254 |
| 22 | | | | | | | | | | | 128 | 260 |
| 23 | | | | | | | | | | | 113 | 251 |
| 24 | | | | | | | | | | | 117 | 246 |
| 25 | | | | | | | | | | | 117 | 295 |
| 26 | | | | | | | | | | 69 | 118 | 382 |
| 27 | | | | | | | | | | 65 | 129 | 395 |
| 28 | | | | | | | | | | 57 | 142 | 380 |
| 29 | | | | | | | | | | 58 | 144 | 396 |
| 30 | | | | | ------ | | | | | 57 | 137 | 397 |
| 31 | | ------ | | | ------ | | ------ | | ------ | 54 | 125 | ------ |
| TOTAL | | | | | | | | | | | 3,479 | 6,002 |
| MEAN | | | | | | | | | | | 112 | 200 |
| MAX | | | | | | | | | | | 156 | 397 |
| MIN | | | | | | | | | | | 48 | 101 |
| CFSM | | | | | | | | | | | .21 | .38 |
| IN. | | | | | | | | | | | .24 | .42 |

## STREAMS TRIBUTARY TO LAKE MICHIGAN

### 04085427 Manitowoc River at Manitowoc, Wis.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 485 | 520 | 150 | 320 | 780 | 160 | 685 | 880 | 1,180 | 171 | 42 | 40 |
| 2 | 416 | 540 | 150 | 300 | 840 | 180 | 671 | 1,070 | 1,090 | 162 | 43 | 36 |
| 3 | 425 | 540 | 150 | 270 | 880 | 250 | 580 | 1,070 | 1,020 | 159 | 42 | 37 |
| 4 | 407 | 540 | 140 | 250 | 740 | 450 | 703 | 1,040 | 950 | 155 | 42 | 55 |
| 5 | 390 | 580 | 140 | 240 | 680 | 700 | 690 | 940 | 940 | 141 | 40 | 51 |
| 6 | 381 | 490 | 140 | 230 | 620 | 1,400 | 685 | 890 | 895 | 130 | 37 | 42 |
| 7 | 379 | 460 | 140 | 210 | 590 | 2,400 | 757 | 860 | 845 | 122 | 36 | 39 |
| 8 | 361 | 470 | 140 | 200 | 540 | 2,340 | 780 | 965 | 780 | 107 | 40 | 37 |
| 9 | 345 | 460 | 140 | 190 | 500 | 1,530 | 752 | 1,030 | 734 | 99 | 49 | 34 |
| 10 | 331 | 440 | 140 | 180 | 480 | 1,760 | 538 | 1,150 | 676 | 93 | 48 | 33 |
| 11 | 314 | 420 | 140 | 170 | 400 | 2,330 | 549 | 1,020 | 626 | 91 | 42 | 30 |
| 12 | 294 | 400 | 140 | 165 | 350 | 2,420 | 730 | 955 | 582 | 105 | 39 | 27 |
| 13 | 285 | 370 | 140 | 150 | 310 | 2,200 | 870 | 870 | 534 | 111 | 37 | 30 |
| 14 | 265 | 350 | 140 | 150 | 280 | 2,570 | 1,140 | 815 | 491 | 103 | 40 | 27 |
| 15 | 251 | 330 | 140 | 150 | 250 | 2,500 | 1,330 | 752 | 450 | 93 | 37 | 26 |
| 16 | 234 | 310 | 140 | 150 | 240 | 2,320 | 1,300 | 716 | 421 | 87 | 37 | 26 |
| 17 | 214 | 290 | 140 | 170 | 230 | 2,070 | 1,300 | 707 | 396 | 83 | 49 | 30 |
| 18 | 159 | 240 | 140 | 250 | 220 | 1,960 | 1,240 | 662 | 368 | 82 | 48 | 31 |
| 19 | 155 | 260 | 140 | 500 | 210 | 1,840 | 1,120 | 622 | 343 | 78 | 49 | 31 |
| 20 | 144 | 240 | 140 | 900 | 190 | 1,690 | 1,050 | 586 | 327 | 74 | 48 | 30 |
| 21 | 146 | 230 | 140 | 840 | 180 | 1,540 | 1,400 | 558 | 292 | 71 | 52 | 31 |
| 22 | 170 | 220 | 140 | 920 | 170 | 1,450 | 1,480 | 518 | 267 | 67 | 59 | 61 |
| 23 | 500 | 210 | 150 | 1,000 | 160 | 1,380 | 1,370 | 491 | 243 | 64 | 62 | 55 |
| 24 | 800 | 200 | 150 | 900 | 150 | 1,280 | 1,240 | 465 | 245 | 61 | 64 | 59 |
| 25 | 720 | 190 | 150 | 1,100 | 150 | 1,200 | 1,130 | 488 | 212 | 62 | 62 | 64 |
| 26 | 640 | 180 | 150 | 1,100 | 150 | 1,120 | 1,060 | 495 | 178 | 61 | 59 | 64 |
| 27 | 600 | 180 | 150 | 1,000 | 160 | 1,050 | 990 | 676 | 171 | 54 | 55 | 67 |
| 28 | 560 | 170 | 150 | 960 | 160 | 980 | 940 | 2,220 | 183 | 49 | 52 | 66 |
| 29 | 520 | 170 | 140 | 920 | ------ | 900 | 885 | 2,390 | 178 | 49 | 48 | 64 |
| 30 | 500 | 170 | 200 | 880 | ------ | 825 | 905 | 1,570 | 171 | 48 | 46 | 57 |
| 31 | 490 | ------ | 350 | 820 | ------ | 748 | ------ | 1,250 | ------ | 45 | 43 | ------ |
| TOTAL | 11,834 | 10,160 | 4,730 | 15,590 | 10,500 | 45,973 | 28,978 | 28,723 | 15,832 | 2,877 | 1,447 | 1,280 |
| MEAN | 382 | 339 | 153 | 503 | 375 | 1,483 | 966 | 927 | 528 | 92.8 | 46.7 | 42.7 |
| MAX | 800 | 580 | 350 | 1,100 | 840 | 2,570 | 1,480 | 2,390 | 1,180 | 171 | 64 | 67 |
| MIN | 144 | 170 | 140 | 150 | 150 | 160 | 538 | 465 | 171 | 45 | 36 | 26 |
| CFSM | .72 | .44 | .29 | .95 | .71 | 2.80 | 1.82 | 1.75 | 1.00 | .18 | .09 | .08 |
| IN. | .83 | .71 | .33 | 1.09 | .74 | 3.23 | 2.03 | 2.02 | 1.11 | .20 | .10 | .09 |

WTR YR 1973 TOTAL 177,924 MEAN 487 MAX 2,570 MIN 26 CFSM .92 IN 12.49

## 04085500 Cedar Lake near Kiel, Wis.

LOCATION.--Lat 43°55'35", long 87°56'25", in SW¼ sec.24, T.17 N., R.21 E., Manitowoc County, at Cedar Lake Resort on narrows of Lake, 5.8 mi (9.3 km) east of Kiel.

DRAINAGE AREA.--1.33 $mi^2$ (3.44 $km^2$).

PERIOD OF RECORD.--August 1936 to September 1942; April 1945 to current year (fragmentary).

GAGE.--Nonrecording gage. Altitude of gage is 890 ft (271 m), from topographic map.

EXTREMES.--Current year: Maximum elevation observed, 98.17 ft (29.922 m) June 8; minimum observed, 95.98 ft (29.255 m) Oct. 21.

Period of record: Maximum elevation observed, 98.72 ft (30.090 m) Mar. 9, 1946; minimum observed, 93.34 ft (28.450 m) Oct. 4, Nov. 1, 1958, Jan. 17, 1959.

An elevation of 100.37 ft (30.592 m) was observed May 20, 1929, by Wisconsin Department of Natural Resources.

REMARKS.--Gage heights have been reduced to elevations above datum assumed for this lake by Wisconsin Department of Natural Resources. Lake ice covered about Dec. 3 to Mar. 4.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | 7.79 | 8.15 | | | 7.77 |
| 2 | | | | | | | | | | | | |
| 3 | | | | | | | 7.39 | | | | 7.79 | |
| 4 | | 8.20 | | | | | | 7.75 | | | | |
| 5 | | | | | | | | | | | | |
| 6 | | | | | | | | | | 7.91 | | |
| 7 | 8.10 | | | | | | 7.41 | | 8.17 | | | 7.73 |
| 8 | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | |
| 10 | | | | | | | | | | 7.87 | 7.81 | |
| 11 | | 8.16 | | | | | | 7.77 | | | | |
| 12 | | | | | | | | | | | | |
| 13 | | | | | | | 7.41 | | | 7.85 | | |
| 14 | 8.05 | | | | | | | | | | | 7.63 |
| 15 | | | | | | | | | | | | |
| 16 | | | | | | | | 7.84 | 8.11 | | | |
| 17 | | | | 8.22 | | | | | | | 7.83 | |
| 18 | 8.01 | | | | | | | 7.81 | | | | |
| 19 | | | | | | | | | | | 7.83 | |
| 20 | | | | | | | | | | | | |
| 21 | 8.08 | | | | | | 7.45 | | | 7.81 | | 7.51 |
| 22 | | | | | | | | | 8.05 | | 7.81 | |
| 23 | | | | | | | | | | | | |
| 24 | | | | | | | | | | | 7.83 | |
| 25 | | | | | | | | | | | | |
| 26 | | | | | | | | 7.91 | | | | |
| 27 | | | | | | | | | | 7.82 | | |
| 28 | 8.14 | | | | 8.08 | 7.39 | 7.85 | | | | | 7.67 |
| 29 | | | | | ------ | | | | 7.99 | | | |
| 30 | | | | | ------ | 8.70 | | | ------ | | | ------ |
| 31 | | ------ | | | ------ | | ------ | | | | | |

NOTE.--Add 90 ft (27 m) to obtain elevation above datum assumed for this lake by Wisconsin Department of Natural Resources.

## 04086000 Sheboygan River at Sheboygan, Wis.

LOCATION.--Lat 43°44'25", long 87°45'35", in SE¼ NE¼ sec.29, T.15 N., R.23 E., Sheboygan County, on left bank 400 ft (122 m) upstream from bridge on State Highway 141, near west city limits of Sheboygan, and 4.2 mi (5.8 km) upstream from mouth.

DRAINAGE AREA.--432 mi² (1,119 km²).

PERIOD OF RECORD.--June 1916 to September 1924 (published as "near Sheboygan"), October 1950 to current year. Monthly discharge only for some periods, published in WSP 1307, 1727.

GAGE.--Water-stage recorder. Datum of gage is 584.00 ft (178.00 m) above mean sea level. June 1916 to June 1924, nonrecording gage at site 0.7 mi (1.1 m) downstream at different datum. November 1950 to June 1951, nonrecording gage at site 0.3 mi (0.5 km) downstream at datum 3.15 ft 0.960 m) lower.

AVERAGE DISCHARGE.--31 years (1916-24, 1950-73), 229 ft³/s (6.49 m³/s), 7.20 in/yr (183 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,580 ft³/s (101.4 m³/s) May 28, gage height, 8.39 ft (2.56 m); minimum, 45 ft³/s (1.27 m³/s) July 15, gage height, 1.72 ft (0.52 m).

Period of record: Maximum discharge observed, 7,140 ft³/s (202.2 m³/s) Mar. 26, 1920, gage height, 9.40 ft (2.87 m) datum then in use; minimum observed, about 1 ft³/s (0.028 m³/s) Aug. 27, 1922, gage height, 1.48 ft (0.45 m) datum then in use, caused by shutdown of powerplants.

REVISIONS (WATER YEARS).--WSP 1307: 1917(M), 1919(M), 1921(M), 1923(M), WSP 1557: Drainage area.

REMARKS.--Records good except those for winter periods, which are fair. Diurnal fluctuation caused by numerous powerplants above station.

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Oct. 1-22; stage-discharge relation affected by ice Nov. 30, Dec. 1, Dec. 4 to Feb. 22.)

Oct. 1 to Mar. 6

| | | | |
|---|---|---|---|
| 2.0 | 57 | 4.0 | 550 |
| 2.5 | 135 | 5.0 | 1,000 |
| 3.0 | 240 | 6.0 | 1,620 |
| 3.5 | 371 | | |

Mar. 7 to Sept. 30

| | | | |
|---|---|---|---|
| 1.7 | 41 | 4.0 | 580 |
| 2.0 | 75 | 6.0 | 1,610 |
| 2.5 | 156 | 8.0 | 3,190 |
| 3.0 | 267 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 734 | 503 | 110 | 220 | 270 | 139 | 285 | 1,090 | 830 | 91 | 58 | 78 |
| 2 | 656 | 690 | 96 | 210 | 330 | 252 | 333 | 1,970 | 692 | 101 | 60 | 74 |
| 3 | 590 | 823 | 90 | 200 | 560 | 778 | 407 | 1,520 | 620 | 104 | 59 | 74 |
| 4 | 538 | 644 | 90 | 190 | 440 | 1,610 | 407 | 1,100 | 648 | 95 | 54 | 95 |
| 5 | 484 | 519 | 90 | 180 | 360 | 1,760 | 440 | 800 | 540 | 88 | 51 | 130 |
| 6 | 437 | 469 | 92 | 170 | 310 | 1,680 | 392 | 720 | 413 | 83 | 49 | 101 |
| 7 | 390 | 477 | 94 | 160 | 290 | 2,750 | 365 | 712 | 377 | 76 | 52 | 90 |
| 8 | 341 | 488 | 96 | 160 | 270 | 2,420 | 356 | 1,220 | 359 | 69 | 57 | 81 |
| 9 | 295 | 448 | 96 | 150 | 290 | 1,800 | 362 | 1,130 | 362 | 62 | 63 | 72 |
| 10 | 225 | 417 | 98 | 140 | 250 | 1,410 | 280 | 925 | 313 | 65 | 67 | 68 |
| 11 | 154 | 384 | 100 | 140 | 220 | 1,920 | 388 | 772 | 271 | 66 | 62 | 67 |
| 12 | 152 | 350 | 100 | 140 | 200 | 2,060 | 461 | 692 | 333 | 61 | 55 | 71 |
| 13 | 133 | 308 | 100 | 130 | 180 | 1,900 | 580 | 608 | 293 | 55 | 57 | 82 |
| 14 | 172 | 237 | 98 | 130 | 160 | 2,260 | 1,020 | 556 | 240 | 53 | 66 | 61 |
| 15 | 162 | 261 | 98 | 130 | 150 | 2,260 | 1,460 | 497 | 209 | 48 | 63 | 60 |
| 16 | 130 | 254 | 94 | 130 | 140 | 1,870 | 1,560 | 452 | 196 | 48 | 62 | 59 |
| 17 | 120 | 242 | 96 | 150 | 140 | 1,500 | 1,560 | 425 | 201 | 49 | 71 | 66 |
| 18 | 106 | 229 | 96 | 300 | 140 | 1,290 | 1,170 | 386 | 196 | 48 | 86 | 74 |
| 19 | 95 | 215 | 96 | 800 | 140 | 1,160 | 450 | 371 | 186 | 46 | 94 | 74 |
| 20 | 91 | 204 | 96 | 640 | 130 | 1,080 | 760 | 330 | 166 | 50 | 89 | 78 |
| 21 | 116 | 187 | 96 | 580 | 130 | 940 | 2,220 | 214 | 153 | 51 | 83 | 59 |
| 22 | 231 | 149 | 94 | 640 | 130 | 815 | 2,290 | 209 | 135 | 51 | 71 | 65 |
| 23 | 1,380 | 176 | 94 | 740 | 127 | 716 | 1,600 | 203 | 142 | 52 | 71 | 86 |
| 24 | 1,420 | 152 | 94 | 660 | 127 | 660 | 1,100 | 301 | 151 | 60 | 74 | 86 |
| 25 | 1,040 | 176 | 96 | 540 | 123 | 588 | 845 | 479 | 144 | 61 | 83 | 101 |
| 26 | 760 | 168 | 96 | 440 | 127 | 484 | 744 | 772 | 135 | 66 | 88 | 123 |
| 27 | 570 | 162 | 96 | 430 | 166 | 470 | 668 | 744 | 130 | 65 | 88 | 157 |
| 28 | 503 | 152 | 96 | 390 | 132 | 315 | 484 | 2,970 | 123 | 60 | 88 | 139 |
| 29 | 459 | 123 | 96 | 320 | ------ | 230 | 556 | 1,980 | 104 | 59 | 82 | 125 |
| 30 | 423 | 130 | 110 | 280 | ------ | 274 | 580 | 1,350 | 95 | 57 | 86 | 106 |
| 31 | 427 | ------ | 240 | 250 | ------ | 274 | ------ | 1,020 | ------ | 60 | 81 | ------ |
| TOTAL | 13,335 | 9,645 | 3,136 | 9,780 | 6,002 | 17,625 | 24,683 | 26,538 | 8,757 | 2,082 | 2,164 | 2,594 |
| MEAN | 430 | 328 | 101 | 315 | 214 | 1,214 | 823 | 856 | 292 | 66.8 | 69.8 | 86.5 |
| MAX | 1,420 | 823 | 240 | 800 | 560 | 2,750 | 2,290 | 2,970 | 830 | 104 | 94 | 157 |
| MIN | 91 | 123 | 90 | 130 | 123 | 139 | 280 | 203 | 95 | 46 | 49 | 59 |
| CFSM | 1.00 | .76 | .23 | .73 | .50 | 2.81 | 1.91 | 1.98 | .68 | .15 | .16 | .20 |
| IN. | 1.15 | .85 | .27 | .94 | .52 | 3.24 | 2.13 | 2.29 | .75 | .17 | .19 | .22 |

CAL YR 1972 TOTAL 96,123 MEAN 263 MAX 2,390 MIN 52 CFSM .61 IN 8.28
WTR YR 1973 TOTAL 148,865 MEAN 407 MAX 2,970 MIN 45 CFSM .93 IN 12.81

PEAK DISCHARGE (BASE, 1,500 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-23 | 2100 | 6.10 | 1,730 | 4-21 | 1400 | 7.92 | 3,120 |
| 3- 7 | 1900 | 8.31 | 3,500 | 5- 2 | 1100 | 7.11 | 2,410 |
| 3-14 | 1700 | 7.39 | 2,640 | 5-28 | 0700 | 8.39 | 3,580 |
| 4-15 | 0200 | 6.18 | 1,730 | | | | |

## 04086150 Milwaukee River at Kewaskum, Wis.

LOCATION.--Lat 43°31'02", long 88°13'24", in SE¼ SE¼ sec.9, T.12 N., R.19 E., Washington County, on right abutment of small dam in Kewaskum, 50 ft (15 m) above unnamed tributary and 2.6 mi (4.2 km) above East Branch Milwaukee River.

DRAINAGE AREA.--146 $mi^2$ (378 $km^2$).

PERIOD OF RECORD.--April 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 930 ft (283 m) from topographic map. Prior to Aug. 21, 1973, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--5 years, 84.0 $ft^3/s$ (2.38 $m^3/s$), 7.81 in/yr (198 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,100 $ft^3/s$ (31.2 $m^3/s$) Mar. 7, gage height, 6.50 ft (1.981 m); minimum observed, 16 $ft^3/s$ (0.45 $m^3/s$) Sept. 16, 17, gage height, 2.12 ft (0.646 m).
Period of record: Maximum discharge, 1,100 $ft^3/s$ (31.2 $m^3/s$) Mar. 7, gage height, 6.50 ft (1.981 m); minimum observed, 1.1 $ft^3/s$ (0.031 $m^3/s$) Aug. 25-28, 1970, gage height, 1.64 ft (0.500 m).

REMARKS.--Records fair except those for the winter period, which are poor.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 1 to Mar. 6.)

Oct. 1 to Mar. 6

| | |
|---|---|
| 2.6 | 48 |
| 3.0 | 89 |
| 4.0 | 260 |
| 5.0 | 535 |

Mar. 7 to Sept. 30

| | | | |
|---|---|---|---|
| 2.1 | 15 | 4.0 | 238 |
| 2.5 | 40 | 5.0 | 472 |
| 3.0 | 88 | 6.0 | 850 |
| 3.5 | 157 | 7.0 | 1,400 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 328 | 286 | 54 | 130 | 210 | 150 | 178 | 381 | 365 | 90 | 32 | 23 |
| 2 | 300 | 273 | 52 | 120 | 270 | 250 | 249 | 776 | 282 | 78 | 32 | 21 |
| 3 | 282 | 260 | 52 | 110 | 250 | 450 | 260 | 752 | 249 | 72 | 31 | 21 |
| 4 | 234 | 249 | 50 | 96 | 240 | 600 | 278 | 784 | 231 | 66 | 29 | 28 |
| 5 | 208 | 238 | 49 | 84 | 230 | 700 | 263 | 580 | 220 | 56 | 28 | 29 |
| 6 | 204 | 229 | 48 | 78 | 170 | 660 | 260 | 408 | 210 | 56 | 28 | 24 |
| 7 | 178 | 225 | 47 | 56 | 140 | 1,080 | 227 | 332 | 199 | 55 | 25 | 21 |
| 8 | 162 | 216 | 46 | 46 | 120 | 1,100 | 220 | 460 | 188 | 49 | 25 | 20 |
| 9 | 148 | 204 | 45 | 42 | 100 | 1,100 | 188 | 403 | 169 | 46 | 24 | 20 |
| 10 | 138 | 196 | 44 | 38 | 86 | 616 | 160 | 392 | 148 | 46 | 23 | 20 |
| 11 | 126 | 192 | 44 | 36 | 74 | 600 | 154 | 386 | 128 | 48 | 23 | 19 |
| 12 | 116 | 185 | 43 | 34 | 58 | 586 | 163 | 368 | 125 | 42 | 21 | 18 |
| 13 | 113 | 178 | 42 | 34 | 46 | 566 | 191 | 341 | 122 | 41 | 21 | 17 |
| 14 | 108 | 172 | 42 | 33 | 42 | 586 | 265 | 332 | 117 | 40 | 24 | 17 |
| 15 | 105 | 162 | 42 | 33 | 42 | 600 | 360 | 302 | 114 | 38 | 24 | 16 |
| 16 | 105 | 156 | 42 | 33 | 42 | 534 | 360 | 294 | 117 | 37 | 24 | 16 |
| 17 | 99 | 146 | 42 | 50 | 44 | 496 | 350 | 270 | 122 | 37 | 23 | 23 |
| 18 | 94 | 143 | 42 | 400 | 45 | 386 | 341 | 242 | 188 | 34 | 23 | 27 |
| 19 | 87 | 143 | 42 | 380 | 46 | 336 | 306 | 238 | 172 | 32 | 23 | 24 |
| 20 | 89 | 140 | 43 | 350 | 47 | 300 | 278 | 231 | 150 | 32 | 25 | 22 |
| 21 | 94 | 119 | 43 | 320 | 47 | 260 | 664 | 227 | 128 | 31 | 20 | 21 |
| 22 | 178 | 99 | 44 | 290 | 45 | 231 | 547 | 238 | 114 | 31 | 20 | 23 |
| 23 | 470 | 75 | 45 | 260 | 45 | 207 | 508 | 278 | 125 | 30 | 29 | 21 |
| 24 | 476 | 73 | 46 | 240 | 45 | 188 | 431 | 263 | 284 | 31 | 36 | 20 |
| 25 | 416 | 82 | 46 | 260 | 47 | 185 | 350 | 252 | 188 | 31 | 32 | 23 |
| 26 | 382 | 92 | 46 | 300 | 56 | 175 | 332 | 238 | 150 | 32 | 30 | 30 |
| 27 | 349 | 102 | 47 | 310 | 64 | 169 | 274 | 314 | 134 | 32 | 28 | 27 |
| 28 | 328 | 68 | 47 | 310 | 80 | 157 | 234 | 760 | 122 | 32 | 25 | 25 |
| 29 | 318 | 56 | 48 | 300 | ------ | 154 | 260 | 640 | 107 | 31 | 23 | 25 |
| 30 | 304 | 56 | 70 | 290 | ------ | 150 | 274 | 540 | 103 | 31 | 25 | 24 |
| 31 | 286 | ------ | 150 | 250 | ------ | 138 | ------ | 469 | ------ | 31 | 26 | ------ |
| TOTAL | 6,825 | 4,815 | 1,543 | 5,385 | 2,731 | 13,710 | 8,925 | 12,491 | 5,071 | 1,338 | 802 | 665 |
| MEAN | 220 | 161 | 49.8 | 173 | 97.5 | 442 | 298 | 403 | 169 | 43.2 | 25.9 | 22.2 |
| MAX | 476 | 286 | 150 | 400 | 270 | 1,100 | 664 | 784 | 365 | 90 | 36 | 30 |
| MIN | 57 | 56 | 42 | 33 | 42 | 138 | 154 | 227 | 103 | 30 | 20 | 16 |
| CFSM | 1.51 | 1.10 | .34 | 1.17 | .67 | 3.03 | 2.04 | 2.76 | 1.16 | .30 | .18 | .15 |
| IN. | 1.74 | 1.23 | .39 | 1.35 | .70 | 3.49 | 2.27 | 3.18 | 1.29 | .34 | .20 | .17 |

CAL YR 1972 TOTAL 39,648 MEAN 108 MAX 1,040 MIN 11 CFSM .74 IN 10.10
WTR YR 1973 TOTAL 64,221 MEAN 176 MAX 1,100 MIN 16 CFSM 1.21 IN 16.36

PEAK DISCHARGE (BASE, 300 $FT^3/S$)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 4-23-68 | 2100 | 4.60 | 340 | 3-21-72 | 0700 | 5.50 | b720 |
| 3-24-69 | 0800 | 4.88 | b385 | 9-21-72 | 1410 | 7.06 | 1,060 |
| 4- 5-69 | 0800 | 4.46 | b318 | 10-24-72 | 0700 | 4.82 | b476 |
| 6-26-69 | 1700 | 6.32 | 615 | 1-18-73 | -- | -- | a400 |
| 3-18-71 | -- | -- | a480 | 1-27-73 | -- | -- | a310 |
| 4- 1-71 | 0700 | 5.54 | b736 | 3- 7-73 | 0700 | 6.50 | a1,100 |
| 4- 8-71 | 0700 | 5.40 | b680 | 4-21-73 | 0700 | 5.56 | b664 |
| 4-13-71 | 0700 | 5.30 | b640 | 5- 4-73 | 0900 | 5.86 | b784 |
| | | | | 5-28-73 | 0700 | 5.80 | b760 |

a About.
b Maximum observed.

## 04086200 East Branch Milwaukee River at New Fane, Wis.

LOCATION.--Lat 43°33'01", long 88°11'18", in center of sec.35, T.13 N., R.19 E., Fond du Lac County, on right bank 150 ft (46 m) downstream of bridge on County Trunk Highway S, 0.4 mi (0.6 km) southwest of New Fane, 0.5 mi (0.8 km) downstream from recreation dam (formerly a mill dam), and 6.0 mi (9.6 km) upstream from mouth.

DRAINAGE AREA.--57.2 $mi^2$ (148 $km^2$).

PERIOD OF RECORD.--April 1968 to current year.

GAGE.--Water-stage recorder Aug. 3 to Sept. 30; temporary nonrecording gage 0.4 mi (0.6 km) upstream at different datum Jan. 21, 1972, to Aug. 2, 1973. Altitude of gage is 950 ft (290 m) from topographic map. Prior to Jan. 21, 1972, water-stage recorder at site 200 ft (61 m) upstream at same datum.

AVERAGE DISCHARGE.--5 years, 27.3 $ft^3/s$ (0.773 $m^3/s$), 6.48 in/yr (165 mm/yr).

EXTREMES.--Current year: Maximum discharge observed, 196 $ft^3/s$ (5.55 $m^3/s$) Mar. 8, gage height, 2.59 ft (0.789 m); minimum daily discharge, 11 $ft^3/s$ (0.31 $m^3/s$) Aug. 6.
Period of record: Maximum discharge observed, 196 $ft^3/s$ (5.55 $m^3/s$) Mar. 8, 1973, gage height, 2.59 ft (0.789 m); minimum daily, 0.76 $ft^3/s$ (0.022 $m^3/s$) Sept. 16, 1971.

REVISION.--WRD Wis. 1971(M).

REMARKS.--Records fair except those for winter period, which are poor.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Mar. 21 to Apr. 14, June 26 to Sept. 19; stage-discharge relation affected by ice Dec. 2, 3, Dec. 5 to Mar. 5.)

| | | | |
|---|---|---|---|
| 0.6 | 9 | 1.5 | 49 |
| .7 | 12 | 2.0 | 99 |
| 1.0 | 20 | 2.6 | 198 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 92 | 59 | 25 | 30 | 34 | 32 | 61 | 93 | 189 | 19 | 13 | 14 |
| 2 | 91 | 61 | 25 | 31 | 36 | 35 | 67 | 126 | 99 | 19 | 13 | 14 |
| 3 | 90 | 65 | 25 | 32 | 39 | 41 | 71 | 129 | 79 | 19 | 12 | 14 |
| 4 | 56 | 59 | 25 | 32 | 45 | 49 | 73 | 128 | 75 | 17 | 12 | 17 |
| 5 | 50 | 56 | 25 | 30 | 39 | 64 | 74 | 122 | 71 | 16 | 12 | 17 |
| 6 | 48 | 53 | 24 | 28 | 33 | 88 | 74 | 112 | 64 | 16 | 11 | 16 |
| 7 | 46 | 55 | 24 | 27 | 28 | 153 | 65 | 119 | 58 | 14 | 12 | 15 |
| 8 | 48 | 51 | 23 | 25 | 25 | 184 | 66 | 122 | 53 | 13 | 12 | 14 |
| 9 | 37 | 49 | 23 | 23 | 23 | 192 | 69 | 109 | 46 | 13 | 13 | 15 |
| 10 | 34 | 46 | 23 | 22 | 22 | 173 | 57 | 108 | 32 | 14 | 12 | 14 |
| 11 | 32 | 44 | 23 | 21 | 21 | 171 | 65 | 108 | 36 | 13 | 12 | 14 |
| 12 | 30 | 39 | 23 | 20 | 20 | 168 | 72 | 97 | 27 | 13 | 12 | 14 |
| 13 | 27 | 37 | 23 | 20 | 20 | 175 | 73 | 91 | 37 | 12 | 12 | 13 |
| 14 | 26 | 35 | 23 | 20 | 20 | 173 | 73 | 84 | 34 | 12 | 15 | 13 |
| 15 | 25 | 35 | 23 | 20 | 19 | 177 | 84 | 83 | 33 | 12 | 14 | 13 |
| 16 | 25 | 31 | 23 | 20 | 19 | 164 | 94 | 71 | 34 | 12 | 13 | 13 |
| 17 | 24 | 31 | 23 | 27 | 19 | 156 | 102 | 67 | 41 | 12 | 13 | 14 |
| 18 | 23 | 30 | 23 | 45 | 19 | 120 | 98 | 63 | 38 | 12 | 13 | 18 |
| 19 | 23 | 28 | 23 | 98 | 19 | 119 | 97 | 61 | 36 | 12 | 14 | 18 |
| 20 | 22 | 28 | 23 | 110 | 19 | 113 | 104 | 56 | 31 | 12 | 14 | 17 |
| 21 | 28 | 27 | 23 | 100 | 19 | 99 | 113 | 55 | 29 | 12 | 14 | 17 |
| 22 | 27 | 27 | 23 | 84 | 19 | 89 | 129 | 54 | 28 | 12 | 13 | 17 |
| 23 | 44 | 26 | 23 | 68 | 20 | 75 | 128 | 58 | 28 | 12 | 16 | 17 |
| 24 | 74 | 26 | 23 | 56 | 20 | 73 | 119 | 65 | 30 | 15 | 16 | 16 |
| 25 | 78 | 26 | 24 | 45 | 22 | 69 | 109 | 69 | 30 | 14 | 16 | 18 |
| 26 | 84 | 26 | 24 | 40 | 24 | 63 | 104 | 62 | 24 | 14 | 15 | 26 |
| 27 | 76 | 26 | 24 | 35 | 28 | 68 | 106 | 138 | 22 | 14 | 15 | 23 |
| 28 | 72 | 26 | 25 | 34 | 30 | 54 | 86 | 128 | 22 | 13 | 14 | 22 |
| 29 | 69 | 26 | 26 | 32 | ------ | 53 | 82 | 169 | 22 | 13 | 14 | 22 |
| 30 | 64 | 26 | 27 | 32 | ------ | 51 | 86 | 134 | 20 | 14 | 14 | 22 |
| 31 | 62 | ------ | 29 | 32 | ------ | 50 | ------ | 112 | ------ | 13 | 15 | ------ |
| TOTAL | 1,508 | 1,154 | 743 | 1,231 | 701 | 3,283 | 2,601 | 2,979 | 1,298 | 428 | 416 | 497 |
| MEAN | 48.6 | 38.5 | 24.0 | 39.7 | 25.0 | 106 | 86.7 | 96.1 | 43.0 | 13.8 | 13.4 | 16.6 |
| MAX | 92 | 65 | 29 | 110 | 45 | 192 | 129 | 169 | 189 | 19 | 16 | 26 |
| MIN | 22 | 26 | 23 | 20 | 19 | 32 | 57 | 55 | 20 | 12 | 11 | 13 |
| CFSM | .85 | .67 | .42 | .69 | .44 | 1.85 | 1.52 | 1.68 | .75 | .24 | .23 | .29 |
| IN. | .98 | .75 | .48 | .80 | .46 | 2.14 | 1.69 | 1.94 | .84 | .28 | .27 | .32 |

CAL YR 1972 TOTAL 11,018.0 MEAN 30.1 MAX 170 MIN 5.4 CFSM .53 IN 7.17
WTR YR 1973 TOTAL 16,831.0 MEAN 46.1 MAX 192 MIN 11 CFSM .81 IN 10.95

## 04086340 North Branch Milwaukee River near Fillmore, Wis.

LOCATION.--Lat 43°28'58", long 88°03'39", in NW¼ sec.25, T.12 N., R.20 E., Washington County, on right bank downstream from County Trunk Highway M, 1.1 mi (1.8 km) south of Fillmore and 2.0 mi (3.2 km) upstream from mouth.

DRAINAGE AREA.--153 mi² (396 km²).

RECORDS AVAILABLE.--April 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 800 ft (240 m) from topographic map.

AVERAGE DISCHARGE.--5 years, 85.7 ft³/s (2.43 m³/s), 7.61 in/yr (193 mm/yr).

EXTREMES.--Current year: Maximum discharge, 925 ft³/s (26.2 m³/s) May 29, gage height, 5.67 ft (1.728 m); minimum daily, 26 ft³/s (0.74 m³/s) Aug. 7.
Period of record: Maximum discharge, 955 ft³/s (27.0 m³/s) Mar. 22, 1972, gage height, 5.69 ft (1.73 m); minimum, 3.0 ft³/s (0.085 m³/s) Aug. 17, 18, 1970, gage height, 0.19 ft (0.058 m).

REVISIONS (WATER YEARS).--WRD Wis. 1971(M).

REMARKS.--Records good except those for winter period, which are fair.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 30 to Dec. 4, Dec. 13 to Mar. 6.)

| | | | |
|---|---|---|---|
| 0.90 | 26 | 4.0 | 276 |
| 1.0 | 30 | 5.0 | 470 |
| 2.0 | 83 | 5.4 | 620 |
| 3.0 | 159 | 5.7 | 970 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 195 | 167 | 68 | 100 | 110 | 82 | 126 | 319 | 400 | 61 | 34 | 35 |
| 2 | 166 | 181 | 68 | 110 | 120 | 100 | 187 | 448 | 317 | 57 | 34 | 34 |
| 3 | 140 | 206 | 66 | 110 | 150 | 140 | 229 | 479 | 254 | 55 | 33 | 55 |
| 4 | 121 | 207 | 66 | 90 | 210 | 250 | 246 | 435 | 207 | 51 | 31 | 71 |
| 5 | 107 | 195 | 64 | 90 | 150 | 400 | 246 | 371 | 249 | 47 | 29 | 80 |
| 6 | 96 | 181 | 61 | 80 | 110 | 500 | 226 | 321 | 212 | 44 | 27 | 75 |
| 7 | 88 | 171 | 56 | 72 | 90 | 615 | 206 | 282 | 188 | 41 | 26 | 63 |
| 8 | 79 | 166 | 55 | 64 | 76 | 740 | 188 | 330 | 161 | 38 | 29 | 51 |
| 9 | 72 | 155 | 56 | 58 | 70 | 610 | 165 | 364 | 143 | 37 | 34 | 47 |
| 10 | 66 | 146 | 59 | 54 | 66 | 460 | 163 | 320 | 126 | 38 | 34 | 43 |
| 11 | 63 | 137 | 61 | 49 | 62 | 463 | 161 | 296 | 109 | 37 | 30 | 40 |
| 12 | 61 | 128 | 64 | 45 | 58 | 463 | 193 | 256 | 100 | 35 | 29 | 37 |
| 13 | 59 | 120 | 64 | 42 | 56 | 450 | 222 | 226 | 102 | 33 | 27 | 34 |
| 14 | 57 | 112 | 64 | 42 | 54 | 488 | 274 | 202 | 98 | 31 | 34 | 33 |
| 15 | 55 | 104 | 64 | 42 | 52 | 485 | 387 | 183 | 91 | 31 | 37 | 32 |
| 16 | 55 | 98 | 64 | 43 | 52 | 450 | 443 | 164 | 100 | 31 | 36 | 33 |
| 17 | 56 | 95 | 64 | 56 | 52 | 400 | 450 | 147 | 126 | 30 | 34 | 40 |
| 18 | 51 | 91 | 64 | 110 | 52 | 341 | 404 | 134 | 127 | 30 | 35 | 57 |
| 19 | 51 | 87 | 66 | 300 | 52 | 286 | 359 | 131 | 117 | 29 | 37 | 52 |
| 20 | 50 | 85 | 66 | 330 | 50 | 242 | 315 | 125 | 106 | 29 | 42 | 46 |
| 21 | 79 | 83 | 66 | 310 | 50 | 212 | 465 | 117 | 94 | 30 | 39 | 42 |
| 22 | 154 | 81 | 68 | 280 | 50 | 187 | 580 | 129 | 84 | 31 | 36 | 42 |
| 23 | 305 | 77 | 68 | 270 | 50 | 167 | 534 | 184 | 89 | 30 | 40 | 43 |
| 24 | 395 | 76 | 68 | 250 | 50 | 154 | 445 | 196 | 93 | 32 | 53 | 48 |
| 25 | 391 | 75 | 70 | 220 | 52 | 144 | 369 | 218 | 85 | 30 | 49 | 49 |
| 26 | 375 | 79 | 72 | 200 | 58 | 138 | 310 | 250 | 78 | 30 | 45 | 71 |
| 27 | 337 | 79 | 72 | 170 | 64 | 129 | 253 | 306 | 73 | 43 | 40 | 75 |
| 28 | 282 | 76 | 74 | 150 | 70 | 123 | 213 | 648 | 68 | 39 | 36 | 72 |
| 29 | 235 | 72 | 76 | 138 | ------ | 118 | 200 | 865 | 65 | 36 | 32 | 71 |
| 30 | 200 | 70 | 82 | 118 | ------ | 114 | 235 | 660 | 64 | 30 | 31 | 68 |
| 31 | 174 | ------ | 98 | 110 | ------ | 111 | ------ | 497 | ------ | 30 | 30 | ------ |
| TOTAL | 4,615 | 3,600 | 2,066 | 4,095 | 2,136 | 9,600 | 8,774 | 9,611 | 4,280 | 1,174 | 1,091 | 1,539 |
| MEAN | 149 | 120 | 66.6 | 132 | 76.3 | 310 | 292 | 310 | 140 | 37.9 | 35.2 | 51.3 |
| MAX | 395 | 207 | 98 | 330 | 210 | 740 | 580 | 865 | 400 | 61 | 53 | 80 |
| MIN | 50 | 70 | 55 | 42 | 50 | 82 | 126 | 117 | 64 | 29 | 26 | 32 |
| CFSM | .97 | .78 | .44 | .86 | .50 | 2.03 | 1.91 | 2.03 | .92 | .25 | .23 | .34 |
| IN. | 1.12 | .88 | .50 | 1.00 | .52 | 2.33 | 2.13 | 2.34 | 1.02 | .29 | .27 | .37 |

CAL YR 1972 TOTAL 35,817 MEAN 97.9 MAX 910 MIN 21 CFSM .64 IN 8.71
WTR YR 1973 TOTAL 52,509 MEAN 144 MAX 865 MIN 26 CFSM .94 IN 12.77

PEAK DISCHARGE (BASE, 300 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 4-24-68 | 1500 | 4.47 | 329 | 9-21-72 | 2300 | 5.62 | 850 |
| 3-20-69 | 2400 | 4.60 | 350 | 10-24-72 | 0900 | 4.72 | 404 |
| 6-27-69 | 0930 | 5.39 | 460 | 1-20-73 | -- | -- | a330 |
| 3-15-71 | -- | -- | a450 | 3- 7-73 | 2400 | 5.56 | 772 |
| 4- 2-71 | 1400 | 5.53 | 736 | 4-16-73 | 2300 | 4.97 | 463 |
| 4-13-71 | 0600 | 5.57 | 784 | 4-22-73 | 0900 | 5.34 | 590 |
| 12-16-71 | -- | -- | a330 | 5- 2-73 | 2400 | 5.05 | 485 |
| 3-22-72 | 0500 | 5.69 | 955 | 5-29-73 | 0600 | 5.67 | 925 |

a About.

## 04086360 Milwaukee River at Waubeka, Wis.

LOCATION.--Lat 43°28'22", long 87°59'23", in SE¼ sec.28, T.12 N., R.21 E., Ozaukee County, on right bank 100 ft (30 m) downstream from bridge on County Trunk Highway I, 800 ft (240 m) downstream from recreation pond dam at Waubeka, and 2.4 mi (3.9 km) downstream from North Branch Milwaukee River.

DRAINAGE AREA.--428 $mi^2$ (1,110 $km^2$).

PERIOD OF RECORD.--March 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 770 ft (234 m), from topographic map. Prior to Aug. 1, 1968, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--5 years, 270 $ft^3/s$ (7.646 $m^3/s$), 8.57 in/yr (218 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,220 $ft^3/s$ (62.9 $m^3/s$) Mar. 8, gage height, 7.31 ft (2.228 m); minimum, 66 $ft^3/s$ (1.869 $m^3/s$) July 17, 18, Aug. 5, gage height, 2.32 ft (0.707 m).
Period of record: Maximum discharge, 2,500 $ft^3/s$ (70.8 $m^3/s$) Apr. 13, 1971, gage height, 7.35 ft (2.240 m); minimum, 19 $ft^3/s$ (0.54 $m^3/s$) Aug. 18, 1970, gage height, 1.90 ft (0.579 m).

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are fair.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 30 to Dec. 2, Dec. 4 to Mar. 6.)

| Oct. 1 to Mar. 4 | | | | Mar. 5 to Sept. 30 | | | |
|---|---|---|---|---|---|---|---|
| 3.0 | 191 | 5.0 | 894 | 2.3 | 63 | 5.0 | 950 |
| 3.5 | 315 | 6.0 | 1,380 | 3.0 | 191 | 6.0 | 1,450 |
| 4.0 | 489 | 7.0 | 2,150 | 3.5 | 315 | 7.0 | 2,000 |
| | | | | 4.0 | 492 | 8.0 | 2,820 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 804 | 587 | 230 | 290 | 390 | 250 | 427 | 1,130 | 1,260 | 215 | 121 | 123 |
| 2 | 718 | 596 | 220 | 300 | 430 | 400 | 607 | 1,460 | 1,040 | 202 | 118 | 118 |
| 3 | 650 | 644 | 216 | 310 | 500 | 740 | 760 | 1,640 | 870 | 202 | 114 | 155 |
| 4 | 568 | 622 | 220 | 290 | 760 | 1,000 | 810 | 1,660 | 920 | 180 | 108 | 187 |
| 5 | 432 | 578 | 220 | 270 | 580 | 1,500 | 815 | 1,540 | 773 | 164 | 72 | 213 |
| 6 | 483 | 545 | 220 | 250 | 400 | 1,900 | 769 | 1,350 | 639 | 162 | 75 | 180 |
| 7 | 429 | 530 | 220 | 240 | 320 | 1,990 | 706 | 1,120 | 580 | 145 | 81 | 159 |
| 8 | 391 | 527 | 220 | 220 | 280 | 2,100 | 647 | 1,220 | 500 | 141 | 93 | 139 |
| 9 | 356 | 503 | 220 | 210 | 250 | 2,050 | 616 | 1,220 | 440 | 132 | 114 | 125 |
| 10 | 250 | 479 | 220 | 200 | 230 | 1,780 | 513 | 1,180 | 390 | 137 | 112 | 120 |
| 11 | 284 | 464 | 220 | 190 | 220 | 1,660 | 496 | 1,090 | 360 | 147 | 103 | 114 |
| 12 | 272 | 440 | 220 | 180 | 210 | 1,570 | 598 | 1,010 | 340 | 129 | 100 | 110 |
| 13 | 264 | 426 | 220 | 180 | 190 | 1,570 | 692 | 985 | 330 | 120 | 100 | 105 |
| 14 | 249 | 401 | 220 | 180 | 180 | 1,740 | 920 | 706 | 320 | 118 | 114 | 102 |
| 15 | 235 | 371 | 220 | 180 | 180 | 1,680 | 1,290 | 764 | 310 | 116 | 120 | 98 |
| 16 | 226 | 357 | 220 | 190 | 170 | 1,570 | 1,410 | 692 | 320 | 112 | 116 | 95 |
| 17 | 216 | 341 | 220 | 290 | 170 | 1,440 | 1,350 | 620 | 420 | 84 | 116 | 99 |
| 18 | 208 | 328 | 220 | 600 | 170 | 1,310 | 1,220 | 529 | 334 | 96 | 110 | 170 |
| 19 | 203 | 316 | 220 | 1,100 | 170 | 1,110 | 1,100 | 559 | 390 | 95 | 105 | 147 |
| 20 | 198 | 303 | 220 | 1,100 | 170 | 845 | 975 | 521 | 360 | 95 | 107 | 139 |
| 21 | 248 | 259 | 220 | 1,000 | 170 | 845 | 1,560 | 476 | 330 | 98 | 107 | 151 |
| 22 | 495 | 274 | 220 | 960 | 170 | 737 | 1,830 | 513 | 330 | 98 | 103 | 133 |
| 23 | 997 | 254 | 230 | 920 | 170 | 661 | 1,720 | 692 | 300 | 96 | 118 | 96 |
| 24 | 1,090 | 244 | 230 | 840 | 170 | 602 | 1,470 | 688 | 280 | 102 | 149 | 112 |
| 25 | 1,020 | 250 | 230 | 740 | 170 | 563 | 1,270 | 810 | 334 | 110 | 141 | 151 |
| 26 | 962 | 257 | 230 | 660 | 180 | 525 | 1,100 | 805 | 380 | 118 | 137 | 202 |
| 27 | 909 | 258 | 240 | 600 | 190 | 402 | 940 | 1,030 | 350 | 157 | 125 | 240 |
| 28 | 808 | 247 | 250 | 520 | 210 | 446 | 773 | 1,780 | 258 | 135 | 116 | 230 |
| 29 | 805 | 225 | 250 | 450 | ------ | 431 | 688 | 1,870 | 260 | 121 | 107 | 200 |
| 30 | 663 | 220 | 260 | 380 | ------ | 413 | 835 | 1,740 | 241 | 123 | 110 | 180 |
| 31 | 506 | ------ | 270 | 380 | ------ | 395 | ------ | 1,460 | ------ | 127 | 133 | ------ |
| TOTAL | 15,939 | 11,846 | 7,036 | 14,220 | 7,400 | 34,225 | 28,907 | 32,780 | 13,959 | 4,077 | 3,445 | 4,393 |
| MEAN | 514 | 395 | 227 | 459 | 264 | 1,104 | 964 | 1,057 | 465 | 132 | 111 | 146 |
| MAX | 1,090 | 644 | 270 | 1,100 | 760 | 2,100 | 1,830 | 1,870 | 1,260 | 215 | 149 | 240 |
| MIN | 198 | 220 | 216 | 180 | 170 | 250 | 427 | 476 | 241 | 84 | 72 | 95 |
| CFSM | 1.20 | .92 | .53 | 1.07 | .62 | 2.58 | 2.25 | 2.47 | 1.09 | .31 | .26 | .34 |
| IN. | 1.39 | 1.03 | .61 | 1.24 | .64 | 2.97 | 2.51 | 2.85 | 1.21 | .35 | .30 | .38 |

CAL YR 1972 TOTAL 115,216 MEAN 315 MAX 1,900 MIN 66 CFSM .74 IN 10.01
WTR YR 1973 TOTAL 178,227 MEAN 488 MAX 2,100 MIN 72 CFSM 1.14 IN 15.49

PEAK DISCHARGE (BASE, 1,000 $FT^3/S$)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 4-24-68 | 2000a | a5.55 | a1,100 | 3-22-72 | -- | -- | a2,100 |
| 3-22-69 | 1500 | 5.48 | 1,120 | 10-24-72 | 0400 | 5.52 | 1,110 |
| 6-28-69 | 0530 | 6.51 | 1,660 | 1-19-73 | -- | -- | a1,200 |
| 3- 2-71 | -- | -- | a1,100 | 3- 8-73 | 2100 | 7.31 | 2,220 |
| 3-15-71 | -- | -- | a2,000 | 4-22-73 | 0500 | 6.76 | 1,860 |
| 4- 2-71 | -- | -- | a2,100 | 5- 4-73 | 0300 | 6.49 | 1,700 |
| 4-13-71 | 1000 | 7.35 | 2,500 | 5-29-73 | 1700 | 6.83 | 1,900 |

a About.

## 04087000 Milwaukee River at Milwaukee, Wis.

LOCATION.--Lat 43°06'00", long 87°54'32", in NE¼ sec.5, T.7 N., R.22 E., Milwaukee County, on left bank near northeast limits of Milwaukee in Estabrook Park, 2,000 ft (600 m) downstream from Port Washington Road Bridge and 6.6 mi (10.6 km) upstream from mouth.

DRAINAGE AREA.--686 $mi^2$ (1,777 $km^2$).

PERIOD OF RECORD.--April 1914 to current year. Published as "near Milwaukee" prior to 1936.

GAGE.--Water-stage recorder. Datum of gage is 607.23 ft (185.084 m) above mean sea level (levels by Corps of Engineers). Prior to Apr. 6, 1929, nonrecording gage near present site at different datum. Apr. 6, 1929, to Jan. 8, 1934, nonrecording gage at bridge 0.5 mi (0.8 km) upstream at different datum.

AVERAGE DISCHARGE.--59 years, 389 $ft^3/s$ (11.0 $m^3/s$), 7.70 in/yr (196 mm/yr).

EXTREMES.--Current year: Maximum discharge, 12,600 $ft^3/s$ (357 $m^3/s$) Apr. 21, gage height, 9.29 ft (2.832 m); minimum, 70 $ft^3/s$ (1.98 $m^3/s$) June 5, gage height, 1.95 ft (0.594 m), result of regulation.
Period of record: Maximum discharge, 15,100 $ft^3/s$ (428 $m^3/s$) Mar. 20, 1918, Aug. 6, 1924, gage height, 9.00 ft (2.743 m) datum then in use, from floodmark for 1918, from graph based on gage reading for 1924, no flow Sept. 8, 1943.

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation caused by recreation dam approximately 600 ft (180 m) upstream. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 564: 1918(M). WSP 924: 1940. WSP 1207: 1936(M). WSP 1337: 1915-17(M), 1918, 1919-21(M), 1922, 1923(M), 1924, 1925-33(M). WSP 1557: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Oct. 1-15; stage-discharge relation affected by ice Nov. 20, 21, Nov. 30 to Dec. 1, Dec. 3 to Jan. 13, Jan. 19 to Feb. 1, Feb. 8-28.)

| | | | |
|---|---|---|---|
| 2.0 | 84 | 4.0 | 1,750 |
| 2.2 | 165 | 5.0 | 3,180 |
| 2.5 | 325 | 6.0 | 4,900 |
| 3.0 | 700 | 8.0 | 9,200 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,430 | 838 | 290 | 1,000 | 620 | 435 | 747 | 1,720 | 2,040 | 377 | 190 | 170 |
| 2 | 1,240 | 1,050 | 261 | 840 | 890 | 827 | 951 | 2,360 | 1,690 | 345 | 180 | 165 |
| 3 | 1,080 | 1,090 | 250 | 720 | 1,250 | 1,490 | 1,170 | 2,490 | 1,430 | 397 | 175 | 152 |
| 4 | 925 | 1,090 | 240 | 620 | 1,370 | 2,020 | 1,310 | 2,410 | 1,280 | 301 | 170 | 364 |
| 5 | 745 | 996 | 230 | 600 | 1,250 | 2,410 | 1,290 | 2,190 | 1,020 | 283 | 156 | 283 |
| 6 | 649 | 895 | 230 | 520 | 1,050 | 2,540 | 1,200 | 1,930 | 1,080 | 265 | 138 | 283 |
| 7 | 615 | 895 | 230 | 430 | 876 | 2,990 | 1,070 | 1,740 | 933 | 250 | 147 | 245 |
| 8 | 559 | 866 | 220 | 390 | 800 | 3,280 | 960 | 1,820 | 798 | 230 | 245 | 210 |
| 9 | 505 | 847 | 220 | 350 | 720 | 3,170 | 940 | 1,890 | 661 | 225 | 265 | 190 |
| 10 | 453 | 819 | 220 | 320 | 640 | 2,870 | 838 | 1,780 | 640 | 215 | 195 | 190 |
| 11 | 377 | 763 | 230 | 290 | 580 | 2,580 | 805 | 1,620 | 602 | 200 | 170 | 180 |
| 12 | 390 | 709 | 230 | 270 | 520 | 2,470 | 1,020 | 1,430 | 602 | 190 | 147 | 180 |
| 13 | 377 | 666 | 230 | 260 | 480 | 2,310 | 1,310 | 1,290 | 521 | 190 | 161 | 180 |
| 14 | 364 | 632 | 220 | 246 | 360 | 3,180 | 2,020 | 1,130 | 483 | 175 | 161 | 170 |
| 15 | 345 | 599 | 220 | 242 | 320 | 3,170 | 3,050 | 990 | 487 | 165 | 170 | 170 |
| 16 | 528 | 567 | 210 | 259 | 310 | 2,820 | 3,480 | 996 | 739 | 161 | 165 | 160 |
| 17 | 325 | 543 | 210 | 354 | 290 | 2,400 | 3,110 | 950 | 597 | 165 | 165 | 180 |
| 18 | 307 | 528 | 230 | 869 | 280 | 2,020 | 2,480 | 817 | 685 | 152 | 165 | 230 |
| 19 | 295 | 513 | 250 | 1,200 | 270 | 1,750 | 2,040 | 780 | 642 | 152 | 161 | 245 |
| 20 | 289 | 500 | 270 | 1,600 | 260 | 1,380 | 1,720 | 772 | 587 | 147 | 161 | 220 |
| 21 | 483 | 480 | 260 | 1,600 | 260 | 1,210 | 7,030 | 745 | 518 | 143 | 156 | 215 |
| 22 | 1,070 | 453 | 260 | 1,500 | 260 | 1,090 | 4,500 | 1,010 | 472 | 138 | 152 | 235 |
| 23 | 2,280 | 446 | 260 | 1,400 | 260 | 968 | 3,660 | 1,050 | 469 | 143 | 205 | 205 |
| 24 | 2,290 | 411 | 260 | 1,300 | 270 | 876 | 2,920 | 1,130 | 527 | 156 | 185 | 170 |
| 25 | 2,090 | 415 | 270 | 1,200 | 280 | 809 | 2,180 | 1,590 | 624 | 156 | 205 | 301 |
| 26 | 1,880 | 423 | 270 | 1,000 | 290 | 763 | 1,780 | 1,680 | 624 | 225 | 205 | 332 |
| 27 | 1,640 | 446 | 280 | 900 | 300 | 694 | 1,460 | 2,080 | 567 | 195 | 200 | 338 |
| 28 | 1,480 | 454 | 300 | 800 | 340 | 604 | 1,230 | 3,600 | 475 | 220 | 185 | 453 |
| 29 | 1,300 | 364 | 330 | 720 | ------ | 623 | 1,050 | 3,520 | 432 | 190 | 170 | 295 |
| 30 | 1,150 | 320 | 450 | 660 | ------ | 606 | 1,230 | 3,180 | 397 | 301 | 161 | 260 |
| 31 | 945 | ------ | 1,200 | 620 | ------ | 639 | ------ | 2,620 | ------ | 195 | 161 | ------ |
| TOTAL | 28,406 | 19,618 | 8,831 | 23,080 | 15,396 | 54,994 | 58,551 | 53,310 | 22,622 | 6,647 | 5,472 | 6,971 |
| MEAN | 916 | 654 | 285 | 745 | 550 | 1,774 | 1,952 | 1,720 | 754 | 214 | 177 | 232 |
| MAX | 2,290 | 1,090 | 1,200 | 1,600 | 1,370 | 3,280 | 7,030 | 3,600 | 2,040 | 397 | 265 | 453 |
| MIN | 289 | 320 | 210 | 242 | 26´ | 435 | 747 | 745 | 397 | 138 | 138 | 152 |
| CFSM | 1.34 | .95 | .42 | 1.09 | .80 | 2.59 | 2.85 | 2.51 | 1.10 | .31 | .26 | .34 |
| IN. | 1.54 | 1.06 | .48 | 1.25 | .83 | 2.98 | 3.18 | 2.89 | 1.23 | .36 | .30 | .38 |

CAL YR 1972 TOTAL 197,827 MEAN 541 MAX 3,230 MIN 100 CFSM .79 IN 10.73
WTR YR 1973 TOTAL 303,898 MEAN 833 MAX 7,030 MIN 138 CFSM 1.21 IN 16.48

PEAK DISCHARGE (BASE, 2,000 $FT^3/S$)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-23 | 1800 | 4.60 | 2,440 | 4-21 | 0400 | 9.29 | 12,600 |
| 3- 8 | 0200 | 5.10 | 3,340 | 5- 3 | 1600 | 4.57 | 2,520 |
| 3-14 | 0600 | 5.18 | 3,460 | 5-28 | 1600 | 5.43 | 3,870 |

## 04087120 Menomonee River at Wauwatosa, Wis.

**LOCATION.**--Lat 43°02'44", long 87°59'59", in NW¼ sec.27, T.7 N., R.21 E., Milwaukee County, near left bank on downstream side of 70th Street bridge in Wauwatosa, 800 ft (200 m) downstream from Honey Creek, and 6.2 mi (10.0 km) upstream from mouth.

**DRAINAGE AREA.**--123 mi² (319 km²).

**PERIOD OF RECORD.**--October 1961 to current year.

**GAGE.**--Nonrecording gage and crest-stage gage. Datum of gage is 630.86 ft (192.286 m) above mean sea level.

**AVERAGE DISCHARGE.**--12 years, 82.1 ft³/s (2.33 m³/s), 9.06 in/yr (231 mm/yr).

**EXTREMES.**--Current year: Maximum discharge, 13,500 ft³/s (382 m³/s) Apr. 21, gage height, 13.92 ft (4.243 m) from rating curve extended above 6,000 ft³/s (170 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 17 ft³/s (0.48 m³/s) Sept. 16.

Period of record: Maximum discharge, 13,500 ft³/s (382 m³/s) Apr. 21, 1973, gage height, 13.92 ft (4.243 m) from rating curve extended above 6,000 ft³/s (170 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 2.8 ft³/s (0.079 m³/s) Jan. 18, 1964.

**REMARKS.**--Records fair except those for winter periods, which are poor.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 2-25, Jan. 6-16, Feb. 8-26.)

| Oct. 1 to Apr. 21 | | | | Apr. 22 to Sept. 30 | | | |
|---|---|---|---|---|---|---|---|
| 0.90 | 29 | 2.0 | 287 | 1.1 | 12 | 5.0 | 1,640 |
| 1.2 | 65 | 3.0 | 700 | 1.5 | 53 | 7.0 | 3,190 |
| 1.5 | 131 | 5.0 | 1,770 | 2.0 | 165 | 9.0 | 5,150 |
| | | | | 3.0 | 520 | 11.0 | 7,460 |

**DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973**

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 200 | 114 | 45 | 396 | 139 | 139 | 180 | 547 | 143 | 36 | 26 | 25 |
| 2 | 220 | 236 | 42 | 353 | 350 | 353 | 180 | 592 | 122 | 96 | 24 | 23 |
| 3 | 162 | 180 | 39 | 632 | 217 | 444 | 165 | 338 | 223 | 64 | 24 | 34 |
| 4 | 124 | 145 | 35 | 327 | 140 | 312 | 230 | 220 | 105 | 43 | 27 | 28 |
| 5 | 111 | 120 | 33 | 174 | 116 | 338 | 195 | 179 | 152 | 30 | 25 | 39 |
| 6 | 106 | 111 | 31 | 130 | 111 | 236 | 137 | 154 | 105 | 30 | 26 | 25 |
| 7 | 86 | 151 | 28 | 98 | 93 | 510 | 121 | 324 | 81 | 30 | 30 | 24 |
| 8 | 82 | 126 | 27 | 68 | 80 | 294 | 118 | 378 | 69 | 28 | 390 | 22 |
| 9 | 74 | 106 | 26 | 50 | 70 | 243 | 130 | 272 | 66 | 34 | 55 | 18 |
| 10 | 73 | 100 | 26 | 45 | 60 | 214 | 162 | 176 | 53 | 34 | 40 | 20 |
| 11 | 88 | 99 | 26 | 42 | 50 | 334 | 204 | 149 | 52 | 32 | 24 | 20 |
| 12 | 67 | 88 | 25 | 41 | 47 | 305 | 294 | 135 | 89 | 28 | 28 | 20 |
| 13 | 60 | 86 | 25 | 40 | 47 | 211 | 473 | 112 | 53 | 31 | 23 | 22 |
| 14 | 54 | 97 | 25 | 40 | 54 | 1,060 | 746 | 110 | 49 | 26 | 30 | 22 |
| 15 | 50 | 84 | 25 | 42 | 45 | 440 | 1,440 | 103 | 53 | 25 | 27 | 21 |
| 16 | 50 | 69 | 26 | 54 | 40 | 316 | 1,410 | 94 | 320 | 25 | 25 | 17 |
| 17 | 54 | 65 | 28 | 230 | 37 | 250 | 801 | 85 | 346 | 25 | 27 | 202 |
| 18 | 54 | 62 | 32 | 319 | 36 | 200 | 582 | 77 | 110 | 26 | 25 | 43 |
| 19 | 49 | 59 | 45 | 250 | 40 | 171 | 323 | 83 | 66 | 27 | 22 | 28 |
| 20 | 46 | 62 | 70 | 204 | 45 | 151 | 709 | 73 | 66 | 34 | 28 | 25 |
| 21 | 192 | 59 | 54 | 171 | 41 | 120 | 6,300 | 73 | 53 | 24 | 27 | 24 |
| 22 | 606 | 54 | 58 | 342 | 40 | 126 | 1,860 | 272 | 49 | 22 | 25 | 40 |
| 23 | 840 | 50 | 49 | 253 | 40 | 111 | 920 | 165 | 50 | 20 | 77 | 24 |
| 24 | 825 | 48 | 49 | 180 | 40 | 106 | 587 | 135 | 55 | 26 | 36 | 22 |
| 25 | 614 | 76 | 49 | 124 | 41 | 111 | 299 | 390 | 56 | 26 | 24 | 217 |
| 26 | 346 | 65 | 50 | 93 | 56 | 93 | 208 | 286 | 50 | 205 | 24 | 117 |
| 27 | 217 | 60 | 52 | 116 | 69 | 88 | 173 | 664 | 47 | 35 | 28 | 45 |
| 28 | 182 | 52 | 54 | 111 | 76 | 84 | 138 | 1,170 | 46 | 25 | 25 | 196 |
| 29 | 134 | 49 | 153 | 49 | ------ | 82 | 143 | 570 | 42 | 22 | 25 | 58 |
| 30 | 114 | 46 | 1,160 | 64 | ------ | 86 | 387 | 364 | 39 | 25 | 25 | 46 |
| 31 | 110 | ------ | 934 | 80 | ------ | 120 | ------ | 196 | ------ | 30 | 31 | ------ |
| TOTAL | 9,996 | 2,737 | 3,313 | 5,110 | 2,220 | 7,672 | 19,543 | 8,486 | 2,809 | 1,164 | 1,265 | 1,467 |
| MEAN | 193 | 91.2 | 107 | 165 | 79.6 | 247 | 651 | 274 | 93.6 | 37.5 | 40.8 | 48.9 |
| MAX | 840 | 236 | 1,160 | 632 | 350 | 1,060 | 6,300 | 1,170 | 344 | 205 | 390 | 217 |
| MIN | 46 | 46 | 25 | 40 | 36 | 82 | 118 | 73 | 39 | 20 | 20 | 17 |
| CFSM | 1.57 | .74 | .87 | 1.34 | .65 | 2.01 | 5.29 | 2.23 | .76 | .30 | .33 | .40 |
| IN. | 1.81 | .83 | 1.00 | 1.55 | .67 | 2.32 | 5.91 | 2.57 | .85 | .35 | .38 | .44 |

CAL YR 1972 TOTAL 50,042 MEAN 137 MAX 2,520 MIN 14 CFSM 1.11 IN 15.14
WTR YR 1973 TOTAL 61,792 MEAN 169 MAX 6,300 MIN 17 CFSM 1.37 IN 18.69

**PEAK DISCHARGE (BASE, 700 FT³/S)**

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-23 | -- | 3.84 | 1,110 | 4-15 | -- | 5.14 | 1,850 |
| 12-30 | -- | 4.52 | 1,480 | 4-21 | -- | 13.92 | 13,500 |
| 1- 3 | -- | 3.21 | 797 | 5-27 | -- | 5.75 | 2,180 |
| 3-14 | -- | 4.04 | 1,210 | 6-16 | -- | 4.02 | 1,020 |

## STREAMS TRIBUTARY TO LAKE MICHIGAN

### 04087204 Oak Creek at South Milwaukee, Wis.

LOCATION.--Lat 42°55'30", long 87°52'12", in NW¼ sec.2, T.5 N., R.22 E., Milwaukee County, on left bank 25 ft (8.0 m) downstream from 15th Avenue bridge in South Milwaukee and 2.8 mi (4.5 km) upstream from mouth.

DRAINAGE AREA.--25.0 mi² (64.8 km²).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder and crest-stage indicator. Altitude of gage is 630 ft (192 m), from topographic map.

AVERAGE DISCHARGE.--10 years, 20.3 ft³/s (0.57 m³/s) 11.03 in/yr (280 mm/yr).

EXTREMES.--Current year: Maximum discharge, 774 ft³/s (21.9 m³/s) Apr. 21, gage height, 7.10 ft (2.16 m); minimum, 0.76 ft³/s (0.022 m³/s) Sept. 16, 17, gage height, 2.27 ft (0.692 m).
Period of record: Maximum discharge, 916 ft³/s (25.9 m³/s) Sept. 18, 1972, gage height, 8.23 ft (2.51 m); minimum, 0.40 ft³/s (0.011 m³/s) Jan. 3, 1964, gage height, 2.33 ft (0.710 m).

REMARKS.--Records good except those for winter periods and periods of backwater from vegetation, which are fair. Low flows may occasionally be affected by activity of gravel pit upstream.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Oct. 22-26, Nov. 2; stage-discharge relation affected by ice Dec. 7-17, Jan. 7-15, Feb. 10-26.)

| | | | |
|---|---|---|---|
| 2.2 | 0.2 | 3.0 | 37 |
| 2.3 | 1.0 | 4.0 | 143 |
| 2.4 | 2.6 | 5.0 | 303 |
| 2.5 | 6.8 | 6.0 | 506 |
| 2.7 | 17 | 7.0 | 748 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | 22 | 12 | 131 | 14 | 38 | 59 | 230 | 16 | 3.4 | 3.4 | 3.4 |
| 2 | 19 | 48 | 12 | 66 | 113 | 121 | 42 | 245 | 13 | 9.3 | 3.2 | 3.4 |
| 3 | 16 | 43 | 11 | 81 | 61 | 127 | 28 | 72 | 13 | 11 | 3.0 | 3.9 |
| 4 | 17 | 28 | 11 | 109 | 25 | 68 | 46 | 39 | 17 | 8.3 | 2.6 | 18 |
| 5 | 16 | 23 | 9.7 | 37 | 20 | 167 | 49 | 28 | 31 | 5.1 | 2.6 | 14 |
| 6 | 13 | 20 | 8.8 | 21 | 17 | 104 | 26 | 24 | 24 | 3.9 | 2.6 | 8.3 |
| 7 | 13 | 26 | 6.8 | 12 | 15 | 201 | 21 | 31 | 15 | 3.0 | 3.0 | 6.0 |
| 8 | 13 | 20 | 6.2 | 10 | 13 | 96 | 19 | 67 | 12 | 2.6 | 6.0 | 4.3 |
| 9 | 13 | 21 | 5.6 | 9.0 | 11 | 56 | 17 | 39 | 9.7 | 5.5 | 6.4 | 2.1 |
| 10 | 12 | 19 | 5.2 | 8.0 | 9.2 | 48 | 17 | 29 | 8.3 | 7.3 | 6.0 | 1.5 |
| 11 | 14 | 17 | 5.0 | 7.0 | 8.4 | 89 | 32 | 21 | 6.8 | 4.3 | 4.3 | 1.3 |
| 12 | 13 | 14 | 4.8 | 6.4 | 7.6 | 69 | 103 | 18 | 6.8 | 3.0 | 3.0 | 1.2 |
| 13 | 12 | 15 | 4.8 | 6.0 | 7.8 | 45 | 316 | 16 | 6.0 | 3.2 | 3.0 | 1.2 |
| 14 | 12 | 29 | 4.6 | 5.8 | 8.0 | 410 | 484 | 15 | 5.1 | 3.2 | 3.4 | 1.0 |
| 15 | 10 | 33 | 4.6 | 5.6 | 7.6 | 149 | 504 | 14 | 8.3 | 3.4 | 3.4 | .92 |
| 16 | 9.3 | 23 | 4.6 | 6.4 | 6.0 | 58 | 382 | 13 | 22 | 3.4 | 3.4 | .84 |
| 17 | 8.8 | 20 | 4.8 | 17 | 5.2 | 48 | 150 | 12 | 33 | 3.4 | 3.4 | 11 |
| 18 | 7.8 | 18 | 5.5 | 40 | 4.6 | 44 | 66 | 11 | 16 | 3.4 | 3.0 | 12 |
| 19 | 7.3 | 15 | 7.3 | 50 | 4.8 | 35 | 59 | 11 | 11 | 5.6 | 3.4 | 4.7 |
| 20 | 6.8 | 14 | 9.3 | 21 | 5.2 | 29 | 46 | 11 | 8.3 | 12 | 3.0 | 2.1 |
| 21 | 14 | 14 | 10 | 10 | 5.4 | 23 | 639 | 9.3 | 6.8 | 7.2 | 2.6 | 2.0 |
| 22 | 165 | 13 | 10 | 83 | 5.4 | 21 | 567 | 17 | 6.0 | 5.4 | 3.0 | 4.3 |
| 23 | 337 | 13 | 8.0 | 51 | 5.4 | 19 | 203 | 18 | 5.5 | 4.2 | 7.3 | 3.9 |
| 24 | 167 | 13 | 8.3 | 21 | 5.4 | 17 | 79 | 13 | 6.0 | 3.6 | 6.4 | 3.0 |
| 25 | 79 | 14 | 8.3 | 17 | 5.4 | 17 | 46 | 26 | 5.1 | 3.0 | 5.1 | 12 |
| 26 | 48 | 17 | 9.3 | 16 | 5.6 | 16 | 36 | 18 | 4.7 | 6.0 | 3.9 | 7.0 |
| 27 | 38 | 17 | 9.3 | 16 | 7.8 | 14 | 25 | 69 | 4.3 | 7.0 | 3.4 | 3.4 |
| 28 | 33 | 13 | 8.3 | 16 | 13 | 14 | 21 | 343 | 3.9 | 4.0 | 3.4 | 29 |
| 29 | 35 | 12 | 17 | 12 | ------ | 14 | 22 | 60 | 3.9 | 3.6 | 3.4 | 32 |
| 30 | 26 | 12 | 502 | 12 | ------ | 14 | 84 | 29 | 3.9 | 4.0 | 3.4 | 13 |
| 31 | 22 | ------ | 436 | 9.7 | ------ | 18 | ------ | 20 | ------ | 4.2 | 3.9 | ------ |
| TOTAL | 1,227.0 | 614 | 1,170.9 | 1,000.9 | 416.8 | 2,189 | 4,188 | 1,568.3 | 332.4 | 157.3 | 117.9 | 211.56 |
| MEAN | 39.6 | 20.5 | 37.8 | 32.3 | 14.9 | 70.6 | 140 | 50.6 | 11.1 | 5.07 | 3.80 | 7.05 |
| MAX | 337 | 48 | 502 | 109 | 113 | 410 | 639 | 343 | 33 | 12 | 7.3 | 32 |
| MIN | 6.8 | 12 | 4.6 | 5.6 | 4.6 | 14 | 17 | 9.3 | 3.9 | 2.6 | 2.6 | .84 |
| CFSM | 1.58 | .82 | 1.51 | 1.29 | .68 | 2.82 | 5.60 | 2.02 | .44 | .20 | .15 | .20 |
| IN. | 1.83 | .91 | 1.74 | 1.49 | .62 | 3.26 | 6.23 | 2.33 | .49 | .23 | .18 | .31 |

CAL YR 1972 TOTAL 11,516.90 MEAN 31.5 MAX 710 MIN 1.0 CFSM 1.26 IN 17.14
WTR YR 1973 TOTAL 13,194.06 MEAN 36.1 MAX 639 MIN .84 CFSM 1.44 IN 19.63

PEAK DISCHARGE (BASE, 250 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-22 | 2300 | a6.57 | 402 | 3-14 | 1200 | 6.22 | 555 |
| 12-30 | 1900 | 6.74 | 680 | 4-14 | 2215 | 6.52 | 627 |
| 1- 4 | 0215 | 5.25 | 350 | 4-21 | 1115 | 7.10 | 774 |
| 3- 5 | 1445 | 4.79 | 265 | 5- 2 | 0515 | 5.34 | 368 |
| 3- 7 | 1230 | 5.00 | 303 | 5-28 | 0400 | 6.15 | 539 |

a Backwater from vegetation.

## 04087220 Root River near Franklin, Wis.

LOCATION.--Lat 42°52'25", long 87°59'45", in SE¼ sec.22, T.5 N., R.21 E., Milwaukee County, on right bank 400 ft (120 m) upstream from State Highway 100, 2.1 mi (3.4 km) upstream from Root River Canal, 2.4 mi (3.9 km) southeast of Franklin, 5.5 mi (8.8 km) southeast of Hales Corners, and about 24 mi (39 km) upstream from mouth.

DRAINAGE AREA.--49.3 $mi^2$ (127.7 $km^2$).

RECORDS AVAILABLE.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 674.5 ft (205.6 m) above mean sea level.

AVERAGE DISCHARGE.--10 years, 42.8 $ft^3/s$ (1.21 $m^3/s$), 11.79 in/yr (299 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,700 $ft^3/s$ (105 $m^3/s$) Apr. 21, gage height, 9.31 ft (2.84 in); minimum, 7.1 $ft^3/s$ (0.20 $m^3/s$) Aug. 22, Sept. 2, 3, 12, gage height, 1.82 ft (0.555 m).
Period of record: Maximum discharge, 3,700 $ft^3/s$ (105 $m^3/s$) Apr. 21, 1973, gage height, 9.31 ft (2.84 m); minimum, 0.38 $ft^3/s$ (0.011 $m^3/s$) Aug. 10, 1971, gage height, 1.45 ft (0.442 m).
Flood of Mar. 30, 1960, reached a stage of 9.57 ft (2.92 m) discharge, 5,130 $ft^3/s$ (145 $m^3/s$), from rating curve extended above 2,000 $ft^3/s$ (56.6 $m^3/s$) on basis of contracted-opening measurement of peak flow.

REMARKS.--Records good except those for winter periods, which are fair.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Oct. 23-24; stage-discharge relation affected by ice Dec. 1-28, Jan. 6-18, Feb. 6-28.)

| | | | | | |
|---|---|---|---|---|---|
| 1.8 | 6.4 | 3.0 | 93 | 7.0 | 880 |
| 1.9 | 9.8 | 4.0 | 155 | 8.0 | 1,830 |
| 2.1 | 21 | 5.0 | 246 | 9.0 | 3,200 |
| 2.5 | 53 | 6.0 | 436 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 106 | 50 | 29 | 338 | 39 | 68 | 106 | 238 | 45 | 17 | 12 | 7.4 |
| 2 | 68 | 97 | 27 | 272 | 200 | 166 | 97 | 320 | 38 | 18 | 11 | 7.1 |
| 3 | 53 | 88 | 25 | 224 | 140 | 247 | 68 | 156 | 45 | 24 | 10 | 7.4 |
| 4 | 46 | 60 | 21 | 400 | 62 | 159 | 97 | 103 | 56 | 23 | 9.8 | 20 |
| 5 | 42 | 51 | 18 | 231 | 50 | 161 | 121 | 81 | 51 | 14 | 9.5 | 39 |
| 6 | 41 | 48 | 17 | 120 | 40 | 133 | 67 | 72 | 42 | 16 | 9.5 | 12 |
| 7 | 40 | 56 | 16 | 80 | 35 | 232 | 49 | 85 | 34 | 15 | 9.1 | 9.1 |
| 8 | 34 | 64 | 16 | 50 | 30 | 156 | 46 | 193 | 28 | 15 | 9.5 | 8.4 |
| 9 | 30 | 48 | 16 | 35 | 26 | 108 | 65 | 125 | 26 | 15 | 20 | 8.4 |
| 10 | 27 | 43 | 16 | 25 | 24 | 93 | 84 | 86 | 24 | 15 | 18 | 8.4 |
| 11 | 29 | 41 | 16 | 23 | 22 | 123 | 73 | 67 | 23 | 14 | 11 | 8.1 |
| 12 | 32 | 39 | 15 | 22 | 21 | 106 | 124 | 55 | 27 | 12 | 9.1 | 8.1 |
| 13 | 29 | 39 | 15 | 22 | 20 | 83 | 227 | 49 | 23 | 13 | 8.8 | 7.8 |
| 14 | 28 | 53 | 15 | 22 | 19 | 479 | 543 | 49 | 21 | 13 | 9.1 | 7.8 |
| 15 | 29 | 54 | 15 | 22 | 19 | 267 | 950 | 49 | 22 | 13 | 9.1 | 7.4 |
| 16 | 30 | 48 | 15 | 35 | 18 | 120 | 894 | 42 | 81 | 13 | 8.8 | 7.4 |
| 17 | 28 | 46 | 15 | 80 | 18 | 100 | 388 | 38 | 148 | 13 | 8.4 | 22 |
| 18 | 27 | 43 | 16 | 120 | 18 | 92 | 155 | 36 | 50 | 12 | 8.4 | 28 |
| 19 | 26 | 40 | 16 | 144 | 18 | 73 | 127 | 40 | 35 | 12 | 8.1 | 12 |
| 20 | 26 | 38 | 17 | 67 | 18 | 61 | 100 | 36 | 31 | 36 | 9.1 | 9.5 |
| 21 | 42 | 36 | 18 | 47 | 18 | 51 | 2,390 | 33 | 27 | 19 | 8.4 | 8.8 |
| 22 | 235 | 36 | 18 | 138 | 18 | 45 | 1,540 | 50 | 24 | 14 | 7.4 | 14 |
| 23 | 611 | 36 | 18 | 118 | 18 | 43 | 371 | 50 | 22 | 13 | 10 | 13 |
| 24 | 369 | 33 | 17 | 52 | 19 | 41 | 171 | 40 | 22 | 13 | 13 | 9.5 |
| 25 | 189 | 36 | 17 | 44 | 19 | 40 | 127 | 87 | 21 | 14 | 9.5 | 25 |
| 26 | 118 | 46 | 17 | 42 | 19 | 37 | 103 | 72 | 20 | 13 | 8.4 | 23 |
| 27 | 84 | 43 | 21 | 42 | 20 | 35 | 86 | 88 | 15 | 27 | 8.4 | 12 |
| 28 | 65 | 36 | 27 | 41 | 25 | 34 | 74 | 443 | 15 | 12 | 7.8 | 89 |
| 29 | 78 | 32 | 31 | 39 | ------ | 35 | 75 | 179 | 17 | 12 | 7.4 | 153 |
| 30 | 60 | 31 | 660 | 47 | ------ | 35 | 154 | 80 | 17 | 11 | 7.4 | 48 |
| 31 | 51 | ------ | 999 | 32 | ------ | 37 | ------ | 55 | ------ | 12 | 7.8 | ------ |
| TOTAL | 2,673 | 1,411 | 2,199 | 2,974 | 993 | 3,460 | 9,472 | 3,097 | 1,050 | 483 | 303.8 | 640.6 |
| MEAN | 86.2 | 47.0 | 70.9 | 95.9 | 35.5 | 112 | 316 | 99.9 | 35.0 | 15.6 | 9.80 | 21.4 |
| MAX | 611 | 97 | 999 | 400 | 200 | 479 | 2,390 | 443 | 148 | 36 | 20 | 153 |
| MIN | 26 | 31 | 15 | 22 | 18 | 34 | 46 | 33 | 15 | 11 | 7.4 | 7.1 |
| CFSM | 1.75 | .95 | 1.44 | 1.95 | .72 | 2.27 | 6.41 | 2.03 | .71 | .32 | .20 | .43 |
| IN. | 2.02 | 1.06 | 1.66 | 2.24 | .75 | 2.61 | 7.15 | 2.34 | 79 | .36 | .23 | .48 |

CAL YR 1972 TOTAL 25,402.6 MEAN 69.4 MAX 1,380 MIN 2.5 CFSM 1.41 IN 19.17
WTR YR 1973 TOTAL 28,756.4 MEAN 78.8 MAX 2,390 MIN 7.1 CFSM 1.60 IN 21.70

PEAK DISCHARGE (BASE, 350 $FT^3/S$)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-23 | 1100 | 7.20 | 670 | 4-15 | 1600 | 7.17 | 999 |
| 12-31 | 1000 | 7.37 | 1,160 | 4-21 | 1600 | 9.31 | 3,700 |
| 1- 4 | 0900 | 6.27 | 516 | 5-28 | 1100 | 6.99 | 874 |
| 3-14 | 1900 | 6.72 | 712 | | | | |

## 04087233 Root River Canal near Franklin, Wis.

LOCATION.--Lat 42°48'55", long 87°59'40", in SE¼ sec.10, T.4 N., R.21 E., Racine County, on right bank 10 ft (3 m) downstream from highway bridge 3.5 mi (5.6 km) upstream from mouth, 5.5 mi (8.8 km) southeast of intersection U.S. 45 and State 100 in Franklin, and 8.7 mi (14 km) southeast of Hales Corners.

DRAINAGE AREA.--57.2 mi² (148.1 km²).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 670 ft (204 m), from topographic map.

AVERAGE DISCHARGE.--10 years, 41.8 ft³/s (1.184 m³/s) 9.92 in/yr (252 mm/yr).

EXTREMES.--Current year: Maximum discharge, 740 ft³/s (21.0 m³/s) Apr. 15, gage height, 9.39 ft (2.86 m); minimum, 1.6 ft³/s (0.045 m³/s) gage height, 2.20 ft (0.67 m).

Period of record: Maximum discharge, 774 ft³/s (21.9 m³/s) Feb. 11, 1966, gage height, 9.27 ft (2.83 m); minimum daily, 0.40 ft³/s (0.011 m³/s) Dec. 19, 1963, result of freezeup.

REMARKS.--Record fair except those below 3.0 ft³/s (0.085 m³/s), which are poor.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Apr. 28, 29, May 11-27, May 30 to June 4, June 12-16, June 19 to July 21; stage-discharge relation affected by ice Dec. 1-29, Jan. 1 to Feb. 1, Feb. 7-25.)

| | | | | | |
|---|---|---|---|---|---|
| 2.0 | 0.50 | 3.5 | 32 | 7.0 | 223 |
| 2.2 | 2.8 | 4.0 | 47 | 8.0 | 340 |
| 2.5 | 7.8 | 5.0 | 87 | 9.0 | 580 |
| 3.0 | 19 | 6.0 | 143 | 10.0 | 1,060 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 132 | 69 | 34 | 500 | 37 | 92 | 86 | 373 | 48 | 12 | 6.0 | 4.0 |
| 2 | 93 | 113 | 30 | 300 | 145 | 177 | 103 | 505 | 41 | 12 | 5.5 | 4.0 |
| 3 | 79 | 181 | 26 | 110 | 176 | 164 | 94 | 308 | 38 | 12 | 4.8 | 3.6 |
| 4 | 70 | 80 | 23 | 240 | 83 | 121 | 93 | 161 | 53 | 13 | 4.5 | 4.2 |
| 5 | 62 | 68 | 20 | 170 | 63 | 145 | 102 | 113 | 337 | 8.6 | 4.2 | 5.0 |
| 6 | 57 | 60 | 18 | 100 | 50 | 145 | 77 | 93 | 195 | 7.6 | 3.7 | 3.8 |
| 7 | 54 | 64 | 17 | 70 | 43 | 229 | 62 | 91 | 92 | 6.7 | 3.6 | 3.4 |
| 8 | 49 | 63 | 16 | 40 | 34 | 199 | 54 | 154 | 65 | 5.8 | 3.6 | 3.2 |
| 9 | 43 | 56 | 16 | 30 | 2[illegible] | 125 | 44 | 135 | 51 | 6.9 | 3.7 | 3.6 |
| 10 | 39 | 54 | 16 | 25 | 2[illegible] | 105 | 61 | 98 | 43 | 19 | 3.6 | 3.2 |
| 11 | 44 | 50 | 16 | 23 | 21 | 143 | 72 | 79 | 37 | 12 | 3.1 | 3.1 |
| 12 | 45 | 45 | 16 | 22 | 3[illegible] | 133 | 98 | 68 | 40 | 9.2 | 3.0 | 3.1 |
| 13 | 40 | 44 | 16 | 21 | 2[illegible] | 98 | 264 | 59 | 37 | 8.4 | 2.8 | 3.2 |
| 14 | 37 | 69 | 16 | 21 | [illegible] | 328 | 506 | 62 | 30 | 7.8 | 2.7 | 3.4 |
| 15 | 32 | 87 | 15 | 22 | 1[illegible] | 297 | 706 | 58 | 28 | 7.3 | 2.7 | 3.2 |
| 16 | 33 | 87 | 15 | 25 | 19 | 152 | 541 | 51 | 93 | 6.4 | 2.7 | 3.1 |
| 17 | 31 | 82 | 15 | 74 | 18 | 113 | 390 | 46 | 236 | 5.5 | 3.1 | 4.5 |
| 18 | 28 | 69 | 16 | 138 | 14 | 98 | 221 | 42 | 113 | 4.6 | 2.8 | 6.2 |
| 19 | 26 | 60 | 16 | 126 | 14 | 85 | 159 | 42 | 68 | 4.5 | 2.7 | 3.8 |
| 20 | 26 | 53 | 17 | 70 | 18 | 76 | 126 | 38 | 52 | 14 | 2.5 | 3.4 |
| 21 | 38 | 50 | 17 | 49 | 18 | 65 | 429 | 34 | 44 | 48 | 2.0 | 3.4 |
| 22 | 209 | 50 | 18 | 87 | 17 | 57 | 603 | 36 | 38 | 21 | 1.9 | 4.5 |
| 23 | 583 | 45 | 18 | 86 | 17 | 51 | 391 | 36 | 32 | 14 | 2.7 | 4.3 |
| 24 | 555 | 41 | 19 | 51 | 17 | 48 | 199 | 34 | 31 | 11 | 3.4 | 3.4 |
| 25 | 379 | 42 | 18 | 41 | 17 | 44 | 130 | 37 | 27 | 10 | 3.2 | 6.0 |
| 26 | 213 | 49 | 18 | 39 | 17 | 40 | 99 | 34 | 25 | 8.8 | 3.2 | 5.7 |
| 27 | 136 | 48 | 18 | 42 | 20 | 35 | 83 | 50 | 22 | 8.0 | 3.1 | 4.2 |
| 28 | 104 | 41 | 19 | 43 | 37 | 33 | 73 | 213 | 22 | 7.1 | 2.8 | 15 |
| 29 | 104 | 37 | 20 | 36 | ------ | 34 | 70 | 110 | 18 | 6.5 | 3.0 | 18 |
| 30 | 87 | 36 | 340 | 30 | ------ | 34 | 185 | 73 | 15 | 6.2 | 3.4 | 23 |
| 31 | 76 | ------ | 666 | 27 | ------ | 35 | ------ | 58 | ------ | 6.2 | 3.8 | ------ |
| TOTAL | 3,508 | 1,613 | 1,565 | 2,658 | 1,039 | 3,501 | 6,121 | 3,291 | 1,971 | 330.1 | 103.8 | 162.5 |
| MEAN | 113 | 60.4 | 50.5 | 85.7 | 37.1 | 113 | 204 | 106 | 65.7 | 10.6 | 3.35 | 5.42 |
| MAX | 583 | 113 | 666 | 500 | 176 | 328 | 706 | 505 | 337 | 48 | 6.0 | 23 |
| MIN | 26 | 36 | 15 | 21 | 17 | 33 | 44 | 34 | 15 | 4.5 | 1.9 | 3.1 |
| CFSM | 1.98 | 1.06 | .88 | 1.50 | .65 | 1.98 | 3.57 | 1.85 | 1.15 | .19 | .06 | .09 |
| IN. | 2.28 | 1.18 | 1.02 | 1.73 | .68 | 2.28 | 3.98 | 2.14 | 1.28 | .21 | .07 | .11 |

CAL YR 1972 TOTAL 27,933.4 MEAN 76.3 MAX 684 MIN 2.8 CFSM 1.33 IN 18.17
WTR YR 1973 TOTAL 26,063.4 MEAN 71.4 MAX 706 MIN 1.9 CFSM 1.25 IN 16.95

PEAK DISCHARGE (BASE, 300 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-23 | 1700 | 9.11 | 624 | 5- 2 | 1100 | 8.85 | 535 |
| 3-14 | 1900 | 8.43 | 423 | 6- 5 | 0800 | 8.19 | 373 |
| 4-15 | 1400 | 9.39 | 740 | | | | |

## STREAMS TRIBUTARY TO LAKE MICHIGAN

### 04087240 Root River at Racine, Wis.

LOCATION.--Lat 42°45'05", long 87°49'25", in NE¼ sec.6, T.3 N., R.23 E., Racine County, on left bank 30 ft (9 m) downstream from State Highway 38 bridge in Racine, 350 ft (110 m) downstream from Horlick Dam, and 5.2 mi (8.4 km) upstream from mouth.

DRAINAGE AREA.--187 $mi^2$ (484 $km^2$).

PERIOD OF RECORD.--August 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 610 ft (187 m), from topographic map. Prior to Feb. 5, 1964 nonrecording gage on bridge 30 ft (9 m) upstream.

AVERAGE DISCHARGE.--10 years, 146 $ft^3/s$ (4.135 $m^3/s$), 10.60 in/yr (269 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,790 $ft^3/s$ (107.3 $m^3/s$) Apr. 22, gage height, 7.88 ft (2.40 m); minimum, 8.0 $ft^3/s$ (0.23 $m^3/s$) Sept. 1, 2, gage height, 2.09 ft (0.64 m).

Period of record: Maximum discharge, 3,790 $ft^3/s$ (107.3 $m^3/s$) Apr. 22, 1973, gage height, 7.88 ft (2.40 m); minimum daily, 1.3 $ft^3/s$ (0.037 $m^3/s$) Oct. 12, Dec. 31, 1963, Jan. 1, 2, 1964.

REMARKS.--Records good except those for winter periods, which are fair.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 1-29, Jan. 5 to Mar. 1.)

| | | | |
|---|---|---|---|
| 2.1 | 8.0 | 4.0 | 610 |
| 2.3 | 20 | 5.0 | 1,250 |
| 2.5 | 42 | 6.0 | 2,020 |
| 3.0 | 164 | 8.0 | 3,910 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 654 | 210 | 110 | 1,190 | 104 | 110 | 275 | 808 | 221 | 40 | 23 | 8.8 |
| 2 | 479 | 250 | 96 | 1,180 | 265 | 413 | 333 | 1,060 | 169 | 43 | 19 | 8.8 |
| 3 | 286 | 300 | 52 | 880 | 473 | 484 | 329 | 1,090 | 155 | 47 | 19 | 8.6 |
| 4 | 235 | 280 | 76 | 712 | 438 | 572 | 299 | 838 | 161 | 52 | 16 | 11 |
| 5 | 204 | 210 | 68 | 780 | 269 | 582 | 347 | 586 | 316 | 47 | 16 | 17 |
| 6 | 182 | 190 | 60 | 860 | 240 | 550 | 338 | 342 | 448 | 36 | 14 | 40 |
| 7 | 173 | 180 | 58 | 500 | 150 | 582 | 243 | 299 | 333 | 30 | 14 | 19 |
| 8 | 164 | 210 | 56 | 280 | 110 | 640 | 275 | 384 | 204 | 28 | 15 | 12 |
| 9 | 135 | 220 | 56 | 180 | 100 | 628 | 275 | 484 | 144 | 26 | 12 | 12 |
| 10 | 122 | 180 | 54 | 130 | 94 | 469 | 161 | 428 | 115 | 34 | 10 | 10 |
| 11 | 108 | 164 | 54 | 100 | 80 | 433 | 218 | 299 | 111 | 38 | [illegible] | 10 |
| 12 | 119 | 150 | 52 | 90 | 74 | 479 | 365 | 235 | 91 | 32 | 19 | 11 |
| 13 | 122 | 141 | 52 | 84 | 66 | 418 | 610 | 201 | 93 | 28 | 13 | 10 |
| 14 | 108 | 176 | 52 | 82 | 64 | 582 | 970 | 185 | 81 | 25 | 13 | 8.6 |
| 15 | 95 | 239 | 52 | 82 | 60 | 802 | 1,610 | 185 | 73 | 23 | 13 | 9.1 |
| 16 | 88 | 235 | 52 | 110 | 58 | 874 | 2,140 | 170 | 103 | 21 | 12 | 9.1 |
| 17 | 88 | 211 | 54 | 130 | 56 | 566 | 1,860 | 147 | 342 | 20 | 14 | 12 |
| 18 | 88 | 200 | 54 | 300 | 54 | 403 | 1,060 | 135 | 375 | 20 | 11 | 17 |
| 19 | 88 | 185 | 54 | 400 | 52 | 351 | 664 | 130 | 254 | 18 | 10 | 27 |
| 20 | 86 | 164 | 56 | 450 | 52 | 299 | 484 | 127 | 152 | 27 | 12 | 19 |
| 21 | 86 | 150 | 60 | 300 | 52 | 246 | 820 | 122 | 121 | 76 | 11 | 14 |
| 22 | 150 | 141 | 64 | 270 | 52 | 218 | 2,680 | 119 | 95 | 91 | 12 | 14 |
| 23 | 600 | 135 | 62 | 450 | 52 | 188 | 2,980 | 152 | 93 | 54 | 11 | 15 |
| 24 | 860 | 130 | 60 | 300 | 52 | 170 | 1,440 | 147 | 78 | 40 | 12 | 19 |
| 25 | 900 | 122 | 52 | 200 | 52 | 158 | 790 | 147 | 69 | 34 | 14 | 20 |
| 26 | 800 | 138 | 46 | 170 | 54 | 141 | 544 | 218 | 64 | 32 | 13 | 23 |
| 27 | 680 | 155 | 38 | 160 | 56 | 127 | 403 | 197 | 56 | 30 | 11 | 32 |
| 28 | 350 | 141 | 32 | 150 | 60 | 113 | 387 | 533 | 50 | 37 | 10 | 36 |
| 29 | 270 | 122 | 50 | 150 | ------ | 113 | 273 | 710 | 47 | 28 | 10 | 101 |
| 30 | 300 | 108 | 423 | 140 | ------ | 113 | 379 | 646 | 43 | 22 | 8.6 | 141 |
| 31 | 250 | ------ | 1,050 | 110 | ------ | 116 | ------ | 316 | ------ | 20 | 8.6 | ------ |
| TOTAL | 8,798 | 5,395 | 3,185 | 10,920 | 3,299 | 11,940 | 23,472 | 11,368 | 4,657 | 1,101 | 428.2 | 693.4 |
| MEAN | 284 | 180 | 103 | 352 | 118 | 385 | 782 | 367 | 155 | 35.5 | 13.8 | 23.1 |
| MAX | 900 | 300 | 1,050 | 1,190 | 479 | 874 | 2,980 | 1,090 | 448 | 91 | 24 | 141 |
| MIN | 86 | 108 | 32 | 82 | 52 | 110 | 161 | 119 | 43 | 18 | 8.6 | 8.8 |
| CFSM | 1.52 | .96 | .55 | 1.88 | .63 | 2.06 | 4.18 | 1.96 | .83 | .19 | .07 | .12 |
| IN. | 1.75 | 1.07 | .63 | 2.17 | .66 | 2.38 | 4.67 | 2.26 | .93 | .22 | .09 | .14 |

CAL YR 1972 TOTAL 82,780.6 MEAN 226 MAX 2,570 MIN 9.2 CFSM 1.21 IN 16.47
WTR YR 1973 TOTAL 85,256.6 MEAN 234 MAX 2,980 MIN 8.8 CFSM 1.25 IN 16.96

PEAK DISCHARGE (BASE, 500 $FT^3/S$)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10- 1 | 1145 | 4.12 | 682 | 3-16 | 0300 | 4.60 | 970 |
| 10-24 | - | - | a1,500 | 4-16 | 1430 | 6.38 | 2,350 |
| 1- 1 | - | - | a1,210 | 4-22 | 2130 | 7.88 | 3,790 |
| 2- 4 | 0300 | 3.82 | 511 | 5- 2 | 2000 | 4.83 | 1,130 |
| | | | | 5-30 | 2200 | 4.35 | 1,820 |

a About.

## 04087257 Pike River near Racine, Wis.

LOCATION.--Lat 42°50'49", long 87°51'30", in SE¼ NE¼ sec.11, T.2 N., R.22 E., Kenosha County, on right bank just downstream from unnamed tributary, 1.7 mi (2.7 km) downstream from Pike Creek, 6.8 mi (10.9 km) southwest of Racine post office and 9.0 mi (14.5 km) upstream from mouth.

DRAINAGE AREA.--38.7 $mi^2$ (100 $km^2$).

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 620 ft (189 m), from topographic map.

EXTREMES.--Current year: Maximum discharge, 824 $ft^3/s$ (23.3 $m^3/s$) Apr. 22, gage height, 6.71 ft (2.05 m); minimum, 2.2 $ft^3/s$ (0.062 $m^3/s$) July 23, 24, gage height, 1.92 ft (0.59 m).

Period of record: Maximum discharge, 1,200 $ft^3/s$ (34.0 $m^3/s$) June 15, 1972, gage height, 7.60 ft (2.32 m) from floodmark; minimum daily, 0.53 $ft^3/s$ (0.015 $m^3/s$) Nov. 11, 1971.

REMARKS.--Records good except those for winter periods, which are fair. Low flows may be affected by occasional regulation of small recreation dam 1.1 mi (1.8 km) upstream.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 1-20, Jan. 11-14, Feb. 9-28.)

| | | | |
|---|---|---|---|
| 2.0 | 3.0 | 3.0 | 64 |
| 2.1 | 5.0 | 4.0 | 167 |
| 2.2 | 8.2 | 5.0 | 336 |
| 2.3 | 12 | 6.0 | 600 |
| 2.5 | 24 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 63 | 38 | 19 | 131 | 25 | 65 | 68 | 416 | 37 | 6.3 | 6.9 | 5.3 |
| 2 | 48 | 82 | 17 | 91 | 110 | 113 | 54 | 347 | 34 | 11 | 6.6 | 4.8 |
| 3 | 42 | 60 | 15 | 124 | 79 | 87 | 46 | 153 | 31 | 15 | 6.3 | 4.8 |
| 4 | 35 | 54 | 14 | 326 | 49 | 71 | 68 | 181 | 33 | 14 | 6.0 | 14 |
| 5 | 33 | 38 | 13 | 326 | 42 | 126 | 56 | 86 | 53 | 10 | 6.0 | 8.6 |
| 6 | 32 | 41 | 12 | 102 | 37 | 105 | 33 | 64 | 57 | 9.9 | 5.0 | 6.3 |
| 7 | 30 | 42 | 12 | 53 | 31 | 128 | 31 | 71 | 32 | 9.5 | 5.3 | 5.6 |
| 8 | 28 | 41 | 11 | 27 | 26 | 99 | 31 | 189 | 31 | 9.1 | 5.6 | 4.8 |
| 9 | 20 | 38 | 11 | 20 | 22 | 78 | 40 | 77 | 25 | 6.0 | 5.6 | 4.8 |
| 10 | 18 | 36 | 11 | 17 | 20 | 71 | 54 | 70 | 20 | 16 | 6.0 | 4.8 |
| 11 | 29 | 33 | 11 | 15 | 16 | 101 | 52 | 49 | 18 | 10 | 5.6 | 5.6 |
| 12 | 33 | 23 | 11 | 14 | 15 | 93 | 60 | 49 | 18 | 9.1 | 5.0 | 6.0 |
| 13 | 12 | 35 | 11 | 13 | 15 | 72 | 100 | 39 | 18 | 9.1 | 4.4 | 6.3 |
| 14 | 23 | 76 | 11 | 13 | 16 | 186 | 200 | 50 | 17 | 7.9 | 5.0 | 6.9 |
| 15 | 17 | 83 | 11 | 13 | 14 | 117 | 400 | 41 | 16 | 6.9 | 5.6 | 6.6 |
| 16 | 18 | 62 | 11 | 16 | 13 | 80 | 350 | 40 | 33 | 6.6 | 5.6 | 6.3 |
| 17 | 20 | 52 | 12 | 44 | 12 | 71 | 150 | 31 | 41 | 6.9 | 6.0 | 13 |
| 18 | 18 | 45 | 15 | 70 | 12 | 66 | 50 | 34 | 31 | 7.2 | 6.0 | 15 |
| 19 | 18 | 40 | 16 | 69 | 12 | 65 | 40 | 34 | 26 | 7.2 | 5.6 | 8.0 |
| 20 | 18 | 34 | 18 | 37 | 12 | 61 | 35 | 27 | 23 | 23 | 5.0 | 7.6 |
| 21 | 28 | 31 | 16 | 28 | 12 | 52 | 347 | 26 | 20 | 22 | 4.0 | 7.2 |
| 22 | 151 | 30 | 14 | 86 | 11 | 45 | 481 | 20 | 15 | 12 | 4.4 | 8.8 |
| 23 | 219 | 28 | 13 | 67 | 11 | 42 | 169 | 33 | 12 | 7.2 | 5.3 | 8.0 |
| 24 | 134 | 27 | 13 | 35 | 11 | 39 | 109 | 30 | 14 | 6.3 | 6.0 | 9.0 |
| 25 | 93 | 20 | 13 | 28 | 11 | 36 | 80 | 41 | 13 | 9.1 | 5.3 | 15 |
| 26 | 72 | 31 | 14 | 28 | 12 | 32 | 65 | 31 | 13 | 7.6 | 4.4 | 10 |
| 27 | 63 | 16 | 14 | 32 | 15 | 17 | 53 | 52 | 13 | 7.6 | 4.6 | 9.0 |
| 28 | 48 | 33 | 14 | 31 | 26 | 35 | 48 | 129 | 15 | 6.9 | 4.8 | 25 |
| 29 | 54 | 26 | 23 | 28 | ------ | 25 | 47 | 97 | 14 | 6.6 | 5.0 | 54 |
| 30 | 49 | 21 | 421 | 24 | ------ | 39 | 142 | 50 | 13 | 6.3 | 5.3 | 44 |
| 31 | 45 | ------ | 284 | 19 | ------ | 69 | ------ | 50 | ------ | 6.9 | 5.3 | ------ |
| TOTAL | 1,503 | 1,224 | 1,101 | 1,927 | 687 | 2,286 | 3,451 | 2,463 | 736 | 299.2 | 168.3 | 334.9 |
| MEAN | 48.5 | 40.8 | 35.5 | 62.2 | 24.5 | 73.7 | 115 | 79.5 | 24.5 | 9.65 | 5.43 | 11.2 |
| MAX | 219 | 83 | 421 | 326 | 110 | 186 | 481 | 416 | 57 | 23 | 6.9 | 54 |
| MIN | 12 | 16 | 11 | 13 | 11 | 17 | 31 | 26 | 12 | 6.0 | 4.4 | 4.8 |
| CFSM | 1.25 | 1.05 | .92 | 1.61 | .63 | 1.90 | 2.97 | 2.05 | .63 | .25 | .14 | .29 |
| IN. | 1.44 | 1.18 | 1.06 | 1.85 | .66 | 2.20 | 3.32 | 2.37 | .71 | .29 | .16 | .32 |

CAL YR 1972 TOTAL 18,432.5 MEAN 50.4 MAX 560 MIN 2.1 CFSM 1.30 IN 17.72
WTR YR 1973 TOTAL 16,180.4 MEAN 44.3 MAX 481 MIN 4.4 CFSM 1.14 IN 15.55

## 05333500 St. Croix River near Danbury, Wis.

LOCATION.--Lat 46°04'28", long 92°14'50", in SW¼ sec.33, T.42 N., R.15 W., Burnett County, on left bank at downstream side of bridge on State Highway 35, 3.5 mi (5.6 km) downstream from Namekagon River, 10 mi (16 km) northeast of Danbury, and at mile 129.2 (207.9 m).

DRAINAGE AREA.--1,588 mi² (4,113 km²).

PERIOD OF RECORD.--March 1914 to current year. Prior to October 1933, published as "at Swiss".

GAGE.--Water-stage recorder. Datum of gage is 882.21 ft (268.898 m) above mean sea level. Prior to Apr. 23, 1937, nonrecording gage 40 ft (12 m) downstream at same datum. Apr. 23, 1937, to Jan. 5, 1939, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--59 years, 1,301 ft³/s (36.84 m³/s), 11.13 in/yr (283 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,070 ft³/s (115 m³/s) Mar. 13, gage height, 3.95 ft (1.204 m); minimum, 742 ft³/s (21.0 m³/s) July 23, gage height, 0.57 ft (0.174 m).

Period of record: Maximum discharge, 10,200 ft³/s (289 m³/s) May 6, 1950, gage height, 8.22 ft (2.505 m); minimum observed, 393 ft³/s (11.1 m³/s) Aug. 6, 13, 1934, gage height, -0.20 ft (-0.061 m), site then in use.

REMARKS.--Records good except those for winter period, which are fair.

REVISIONS (WATER YEARS).--WSP 1208: Drainage area. WSP 1438: 1915(M), 1919-20, 1923-24(M), 1927(M), 1931(M), 1934, 1935-37(M). WSP 1628: 1918.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 17-19, 21-24, 26-29, Dec. 2 to Mar. 12.)

| | | | |
|---|---|---|---|
| 0.6 | 760 | 2.0 | 1,940 |
| .8 | 900 | 3.0 | 3,010 |
| 1.0 | 1,060 | 4.0 | 4,130 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,350 | 1,290 | 1,110 | 1,300 | 1,100 | 1,500 | 2,450 | 1,710 | 2,030 | 1,180 | 954 | 1,520 |
| 2 | 1,250 | 1,550 | 1,100 | 1,200 | 1,100 | 1,500 | 2,420 | 2,140 | 1,920 | 1,150 | 981 | 1,550 |
| 3 | 1,510 | 2,100 | 1,000 | 1,200 | 1,100 | 1,600 | 2,240 | 2,310 | 1,880 | 1,130 | 972 | 1,680 |
| 4 | 1,710 | 2,160 | 940 | 1,100 | 1,100 | 1,700 | 2,160 | 2,210 | 2,050 | 1,040 | 983 | 1,930 |
| 5 | 1,900 | 2,090 | 980 | 1,100 | 1,100 | 1,800 | 2,100 | 2,130 | 2,080 | 1,000 | 886 | 1,840 |
| 6 | 1,970 | 1,990 | 980 | 1,100 | 1,100 | 2,000 | 2,000 | 2,070 | 2,070 | 954 | 981 | 1,720 |
| 7 | 1,860 | 2,000 | 1,000 | 1,100 | 1,200 | 2,200 | 1,920 | 2,030 | 1,950 | 995 | 1,050 | 1,620 |
| 8 | 1,690 | 1,940 | 1,000 | 1,100 | 1,200 | 2,500 | 1,850 | 1,940 | 1,910 | 910 | 1,390 | 1,510 |
| 9 | 1,630 | 1,910 | 1,000 | 1,100 | 1,200 | 2,800 | 1,720 | 1,940 | 1,880 | 930 | 1,700 | 1,450 |
| 10 | 1,610 | 1,900 | 1,100 | 1,100 | 1,200 | 3,100 | 1,720 | 2,040 | 1,820 | 1,040 | 1,790 | 1,290 |
| 11 | 1,620 | 1,890 | 1,100 | 1,100 | 1,200 | 3,300 | 1,600 | 2,050 | 1,760 | 917 | 1,780 | 1,260 |
| 12 | 1,650 | 1,820 | 1,100 | 1,100 | 1,200 | 3,500 | 1,510 | 2,010 | 1,670 | 875 | 1,910 | 1,120 |
| 13 | 1,530 | 1,780 | 1,100 | 1,100 | 1,200 | 3,970 | 1,500 | 1,960 | 1,490 | 883 | 1,950 | 1,070 |
| 14 | 1,440 | 1,750 | 1,100 | 1,100 | 1,200 | 3,790 | 1,510 | 1,940 | 1,390 | 955 | 1,960 | 1,070 |
| 15 | 1,390 | 1,560 | 1,100 | 1,100 | 1,200 | 3,810 | 1,570 | 1,800 | 1,290 | 878 | 1,760 | 1,030 |
| 16 | 1,370 | 1,350 | 1,100 | 1,100 | 1,200 | 3,900 | 1,860 | 1,690 | 1,290 | 946 | 1,940 | 1,050 |
| 17 | 1,300 | 1,400 | 1,100 | 1,100 | 1,200 | 3,810 | 1,890 | 1,600 | 1,300 | 945 | 1,940 | 958 |
| 18 | 1,280 | 1,400 | 1,000 | 1,200 | 1,200 | 3,750 | 1,920 | 1,650 | 1,340 | 852 | 1,87 | 998 |
| 19 | 1,270 | 1,400 | 1,000 | 1,200 | 1,300 | 3,630 | 1,930 | 1,630 | 1,330 | 851 | 1,850 | 967 |
| 20 | 1,260 | 1,360 | 1,100 | 1,200 | 1,300 | 3,730 | 2,010 | 1,600 | 1,210 | 833 | 1,910 | 981 |
| 21 | 1,350 | 1,300 | 1,100 | 1,200 | 1,300 | 3,390 | 2,040 | 1,400 | 1,180 | 873 | 1,710 | 1,020 |
| 22 | 1,500 | 1,300 | 1,100 | 1,200 | 1,300 | 2,880 | 2,050 | 1,400 | 1,190 | 836 | 1,520 | 1,240 |
| 23 | 1,420 | 1,300 | 1,100 | 1,100 | 1,300 | 2,940 | 1,890 | 1,760 | 1,150 | 870 | 1,480 | 1,210 |
| 24 | 1,470 | 1,200 | 1,100 | 1,100 | 1,400 | 2,990 | 1,970 | 1,880 | 1,200 | 1,020 | 1,420 | 1,080 |
| 25 | 1,430 | 1,220 | 1,100 | 1,100 | 1,400 | 3,050 | 1,800 | 3,020 | 1,240 | 1,080 | 1,360 | 1,270 |
| 26 | 1,330 | 1,200 | 1,100 | 1,100 | 1,400 | 3,080 | 1,740 | 3,650 | 1,310 | 906 | 1,320 | 1,290 |
| 27 | 1,390 | 1,200 | 1,100 | 1,100 | 1,400 | 3,030 | 1,710 | 3,510 | 1,300 | 1,060 | 1,350 | 1,540 |
| 28 | 1,260 | 1,100 | 1,100 | 1,100 | 1,500 | 2,990 | 1,620 | 3,220 | 1,260 | 1,170 | 1,260 | 1,500 |
| 29 | 1,300 | 1,100 | 1,200 | 1,100 | ------ | 2,960 | 1,560 | 3,040 | 1,210 | 1,210 | 1,190 | 1,420 |
| 30 | 1,270 | 1,110 | 1,200 | 1,100 | ------ | 2,870 | 1,530 | 2,640 | 1,210 | 1,170 | 1,220 | 1,380 |
| 31 | 1,320 | ------ | 1,200 | 1,100 | ------ | 2,750 | ------ | 2,160 | ------ | 1,020 | 1,360 | ------ |
| TOTAL | 45,630 | 46,710 | 33,390 | 35,000 | 34,600 | 90,820 | 55,890 | 66,130 | 45,970 | 30,589 | 45,687 | 39,564 |
| MEAN | 1,472 | 1,557 | 1,077 | 1,129 | 1,236 | 2,930 | 1,863 | 2,133 | 1,532 | 986 | 1,474 | 1,319 |
| MAX | 1,970 | 2,160 | 1,200 | 1,300 | 1,500 | 3,970 | 2,650 | 3,650 | 2,080 | 1,210 | 1,960 | 1,930 |
| MIN | 1,250 | 1,100 | 940 | 1,100 | 1,100 | 1,500 | 1,500 | 1,400 | 1,150 | 833 | 886 | 958 |
| CFSM | .93 | .98 | .68 | .71 | .78 | 1.85 | 1.17 | 1.34 | .96 | .62 | .93 | .83 |
| IN. | 1.07 | 1.09 | .78 | .82 | .81 | 2.13 | 1.31 | 1.55 | 1.08 | .71 | 1.07 | .93 |

CAL YR 1972 TOTAL 587,783 MEAN 1,606 MAX 6,460 MIN 883 CFSM 1.01 IN 13.77
WTR YR 1973 TOTAL 569,988 MEAN 1,561 MAX 3,970 MIN 833 CFSM .98 IN 13.35

PEAK DISCHARGE (BASE, 3,000 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 3-13 | 0700 | 3.95 | 4,070 | 5-26 | 1500 | 3.64 | 3,710 |

## ST. CROIX RIVER BASIN

### 05334000 Shell Lake at Shell Lake, Wis.

LOCATION.--Lat 45°44'46", long 91°55'00", in NE¼ sec.25, T.38 N., R.13 W., Washburn County, 500 ft (150 m) east of Peterson Boat Factory in the village of Shell Lake.

DRAINAGE AREA.--34.0 mi² (88 km²), approximately. Area of Shell Lake, 3,200 acres (13 km²).

PERIOD OF RECORD.--August 1936 to current year (fragmentary).

GAGE.--Nonrecording gage. Datum of gage is 1,215.88 ft (370.600 m) above mean sea level. May 3, 1952, to Apr. 21, 1961, 2.3 mi (3.7 km) southeast of village of Shell Lake at same datum.

EXTREMES.--Current year: Maximum gage height observed, 3.86 ft (1.177 m) June 9; minimum observed, 2.54 ft (0.774 m) Oct. 28.

Period of record: Maximum gage height observed, 5.13 ft (1.564 m) July 17, 1954; minimum observed, -0.92 ft (-0.280 m) Nov. 28, 1949.

REMARKS.--Lake has no surface outlet. Lake ice covered from Dec. 1 to Apr. 1.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | 2.83 | | | | 3.80 | | | 3.20 |
| 2 | | | | | | | | | | | 3.06 | |
| 3 | | 2.56 | | 2.81 | | | | 3.50 | | | | |
| 4 | | | | | | | | | | 3.50 | 3.10 | |
| 5 | | | | | | | 3.40 | | | 3.64 | | |
| 6 | | 2.70 | | | | | | | | | | 3.20 |
| 7 | 2.76 | | | | | | | | 3.86 | | | |
| 8 | | | | | | | | 3.56 | | | | |
| 9 | | 2.64 | | | | | | | | | 3.16 | |
| 10 | | | | | | | | 3.56 | | | | |
| 11 | | | | | | | | | | 3.36 | | 3.00 |
| 12 | 2.68 | | | | | | | | | | | |
| 13 | | | | | | | | | | | | |
| 14 | | | | | | | | | 3.76 | | | |
| 15 | | | | | | | | | | | 3.16 | |
| 16 | | 2.62 | | | | | | 3.50 | | | | |
| 17 | | | | | | | | | | | | |
| 18 | | | | | | | | | | 3.20 | | |
| 19 | | | | | | | | | | | | 2.94 |
| 20 | 2.60 | | | | | | | | 3.64 | | | |
| 21 | | | | | | | 3.48 | | | | 3.14 | |
| 22 | | 2.60 | | | | | | | | | | |
| 23 | | | | | | | | 3.76 | | | | |
| 24 | | | | | | | | | | 3.20 | | |
| 25 | | | | | | | 3.46 | | | | | 3.00 |
| 26 | 2.54 | | | | ------ | | | | | | | ------ |
| 27 | | | | | ------ | | ------ | | ------ | | | |
| 28 | | ------ | | | ------ | | | | | | | |
| 29 | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | |

## ST. CROIX RIVER BASIN

### 05338500 Snake River near Pine City, Minn.

**LOCATION.**--Lat 45°50'30", long 92°56'00", in SE¼ NW¼ sec.26, T.39 N., R.21 W., Pine County, on left bank at site of former powerplant and dam, 0.5 mi (0.8 km) downstream from Cross Lake and 1.5 mi (2.4 km) northeast of Pine City.

**DRAINAGE AREA.**--958 mi² (2.480 km²).

**RECORDS AVAILABLE.**--June 1913 to September 1917, July 1951 to current year.

**GAGE.**--Water-stage recorder. Datum of gage is 919.00 ft (280.11 m) above mean sea level, datum of 1929. June 25, 1913, to Sept. 30, 1917, nonrecording gage at site 500 ft (152 m) downstream at different datum. July 1 to Oct. 28, 1951, nonrecording gage at present site and datum.

**AVERAGE DISCHARGE.**--26 years, 597 ft³/s (16.9 m³/s), 8.46 in/yr (215 mm/yr).

**EXTREMES.**--Current year: Maximum discharge, 5,560 ft³/s (157 m³/s) Mar. 18 (gage height, 7.20 ft or 2.195 m); minimum, 60 ft³/s (1.70 m³/s) July 22 (gage height, 2.94 ft or 0.896 m).
Period of record: Maximum discharge, 14,300 ft³/s (405 m³/s) July 27, 1972 (gage height, 10.38 ft or 3.164 m); minimum, 5.5 ft³/s (0.16 m³/s) Oct. 1, 1964 (gage height, 2.57 ft or 0.783 m), result of dam rehabilitation 0.5 mi (0.8 km) upstream.
A discharge measurement of 12,500 ft³/s (354 m³/s) was made May 9, 1950.

**REMARKS.**--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 587 | 464 | 290 | 146 | 170 | 169 | 1,750 | 562 | 2,040 | 252 | 190 | 360 |
| 2 | 470 | 577 | 270 | 147 | 170 | 168 | 1,640 | 662 | 1,750 | 281 | 195 | 380 |
| 3 | 546 | 875 | 250 | 148 | 170 | 170 | 1,500 | 715 | 1,570 | 254 | 185 | 426 |
| 4 | 562 | 1,370 | 230 | 149 | 170 | 189 | 1,360 | 742 | 1,390 | 252 | 180 | 488 |
| 5 | 585 | 1,080 | 210 | 150 | 170 | 201 | 1,250 | 760 | 1,340 | 252 | 169 | 497 |
| 6 | 594 | 2,060 | 200 | 152 | 170 | 220 | 1,120 | 770 | 1,320 | 271 | 190 | 483 |
| 7 | 562 | 2,130 | 185 | 153 | 170 | 249 | 1,080 | 751 | 1,270 | 263 | 196 | 465 |
| 8 | 546 | 2,030 | 175 | 154 | 170 | 286 | 899 | 742 | 1,200 | 246 | 335 | 429 |
| 9 | 493 | 1,930 | 160 | 155 | 170 | 342 | 797 | 780 | 1,050 | 233 | 455 | 399 |
| 10 | 471 | 1,790 | 150 | 156 | 170 | 444 | 774 | 816 | 920 | 215 | 582 | 376 |
| 11 | 470 | 1,610 | 145 | 158 | 170 | 688 | 786 | 830 | 806 | 190 | 667 | 338 |
| 12 | 457 | 1,410 | 135 | 160 | 168 | 1,020 | 629 | 853 | 699 | 185 | 655 | 297 |
| 13 | 471 | 1,200 | 130 | 161 | 168 | 1,670 | 580 | 888 | 595 | 174 | 632 | 271 |
| 14 | 471 | 1,090 | 129 | 162 | 168 | 2,480 | 546 | 891 | 583 | 152 | 543 | 261 |
| 15 | 442 | 935 | 129 | 164 | 168 | 3,570 | 577 | 881 | 441 | 135 | 474 | 239 |
| 16 | 442 | 826 | 129 | 165 | 168 | 4,640 | 628 | 881 | 419 | 121 | 427 | 218 |
| 17 | 482 | 733 | 130 | 168 | 168 | 5,200 | 636 | 710 | 430 | 115 | 398 | 218 |
| 18 | 370 | 662 | 130 | 172 | 168 | 5,530 | 688 | 639 | 435 | 114 | 389 | 201 |
| 19 | 358 | 602 | 130 | 172 | 168 | 5,430 | 724 | 577 | 477 | 112 | 448 | 181 |
| 20 | 352 | 554 | 130 | 172 | 168 | 5,090 | 760 | 534 | 516 | 84 | 429 | 164 |
| 21 | 376 | 500 | 131 | 172 | 168 | 4,640 | 836 | 480 | 500 | 73 | 482 | 164 |
| 22 | 376 | 464 | 132 | 172 | 168 | 4,140 | 836 | 485 | 471 | 69 | 487 | 233 |
| 23 | 482 | 422 | 133 | 172 | 168 | 3,640 | 817 | 470 | 436 | 188 | 484 | 187 |
| 24 | 428 | 402 | 134 | 172 | 169 | 3,210 | 826 | 547 | 404 | 190 | 399 | 174 |
| 25 | 457 | 416 | 135 | 172 | 166 | 2,870 | 817 | 900 | 388 | 183 | 389 | 256 |
| 26 | 457 | 409 | 136 | 172 | 168 | 2,630 | 798 | 1,510 | 385 | 182 | 372 | 294 |
| 27 | 464 | 383 | 137 | 172 | 164 | 2,450 | 742 | 1,970 | 343 | 188 | 356 | 348 |
| 28 | 457 | 340 | 138 | 172 | 165 | 2,310 | 670 | 2,260 | 314 | 194 | 333 | 385 |
| 29 | 428 | 322 | 140 | 171 | ------ | 2,180 | 594 | 2,400 | 290 | 191 | 317 | 418 |
| 30 | 416 | 310 | 143 | 170 | ------ | 2,050 | 554 | 2,400 | 273 | 197 | 308 | 436 |
| 31 | 442 | ------ | 145 | 170 | ------ | 1,900 | ------ | 2,260 | ------ | 194 | 360 | ------ |
| TOTAL | 14,290 | 28,616 | 4,941 | 5,051 | 4,718 | 69,704 | 26,054 | 30,660 | 22,977 | 5,670 | 11,778 | 9,594 |
| MEAN | 461 | 954 | 159 | 163 | 169 | 2,251 | 868 | 989 | 766 | 183 | 380 | 320 |
| MAX | 594 | 2,130 | 290 | 172 | 170 | 5,530 | 1,750 | 2,400 | 2,040 | 281 | 667 | 497 |
| MIN | 352 | 310 | 129 | 146 | 164 | 168 | 546 | 470 | 273 | 69 | 169 | 164 |
| CFSM | .48 | 1.00 | .17 | .17 | .18 | 2.35 | .91 | 1.03 | .80 | .19 | .40 | .33 |
| IN. | .55 | 1.11 | .19 | .20 | .18 | 2.71 | 1.01 | 1.19 | .89 | .22 | .46 | .37 |

CAL YR 1972 TOTAL 396,595 MEAN 1,084 MAX 14,200 MIN 129 CFSM 1.13 IN 15.40
WTR YR 1973 TOTAL 234,141 MEAN 641 MAX 5,530 MIN 69 CFSM .67 IN 9.09

## 05340500 St. Croix River at St. Croix Falls, Wis.

LOCATION.--Lat 45°24'25", long 92°38'49", in NW¼ sec.30, T.34 N., R.18 W., Polk County, on left bank, 1,800 ft (550 m) downstream from powerplant of Northern States Power Co., in St. Croix Falls, and at mile 52.2 (84.0 km).

DRAINAGE AREA.--5,930 mi² (15,360 km²), approximately.

PERIOD OF RECORD.--January 1902 to current year. Prior to January 1910, monthly discharge only, published in WSP 1308. Prior to October 1939, published as "near St. Croix Falls."

GAGE.--Water-stage recorder. Datum of gage is 689.94 ft (210.294 m) above mean sea level. Prior to July 1905, gage heights and discharge measurements were used by Loweth and Wolff, consulting engineers of St. Paul, Minn., to determine the flow. July 1905 to February 1940, records were computed from power generation at the St. Croix Falls powerplant.

AVERAGE DISCHARGE.--71 years, 4,158 ft³/s (117.8 m³/s), 9.52 in/yr (242 mm/yr).

EXTREMES.--Current year: Maximum discharge, 25,100 ft³/s (711 m³/s) Mar. 18, gage height, 11.89 ft (3.624 m), minimum daily, 1,860 ft³/s (52.7 m³/s) July 22.

Period of record: Maximum discharge, 54,900 ft³/s (1,550 m³/s) May 8, 1950, gage height, 25.19 ft (7.678 m); minimum daily, 75 ft³/s (2.12 m³/s) July 17, 1910.

REMARKS.--Records are good. Diurnal fluctuation caused by St. Croix Falls powerplant 1,800 ft (550 m) upstream.

REVISIONS (WATER YEARS).--WSP 1115: 1929.

Rating table (gage height, in feet, and discharge, in cubic feet per second).

| | | | |
|---|---|---|---|
| 2.2 | 1,840 | 4.0 | 6,950 |
| 2.3 | 2,050 | 6.0 | 11,900 |
| 2.6 | 2,720 | 8.0 | 16,400 |
| 3.0 | 3,800 | 12.0 | 25,400 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5,250 | 4,510 | 2,800 | 2,910 | 2,810 | 2,340 | 11,100 | 5,910 | 10,100 | 2,880 | 3,010 | 4,900 |
| 2 | 4,570 | 5,140 | 2,900 | 2,970 | 2,740 | 2,670 | 11,600 | 6,300 | 8,910 | 1,620 | 2,110 | 4,700 |
| 3 | 5,070 | 6,350 | 2,140 | 3,060 | 2,760 | 2,410 | 9,350 | 5,750 | 4,240 | 2,860 | 2,570 | 4,290 |
| 4 | 6,260 | 10,100 | 2,110 | 3,030 | 2,760 | 2,750 | 7,860 | 7,350 | 4,050 | 2,910 | 2,350 | 4,580 |
| 5 | 5,500 | 11,500 | 2,120 | 2,740 | 2,580 | 3,040 | 8,520 | 7,340 | 3,150 | 3,040 | 2,060 | 5,300 |
| 6 | 5,590 | 11,600 | 2,320 | 2,820 | 2,890 | 3,200 | 7,460 | 7,370 | 3,010 | 3,040 | 2,240 | 5,570 |
| 7 | 5,770 | 10,800 | 2,370 | 2,590 | 2,870 | 3,140 | 7,500 | 7,230 | 7,580 | 2,800 | 3,140 | 5,230 |
| 8 | 5,540 | 10,200 | 2,940 | 2,510 | 2,820 | 3,930 | 7,160 | 6,500 | 7,370 | 2,370 | 2,160 | 4,530 |
| 9 | 5,270 | 9,640 | 2,930 | 2,540 | 2,750 | 3,940 | 6,760 | 7,110 | 5,990 | 3,020 | 4,440 | 4,100 |
| 10 | 5,270 | 8,830 | 2,970 | 2,160 | 2,590 | 4,670 | 5,150 | 7,800 | 5,240 | 2,310 | 5,670 | 4,230 |
| 11 | 5,250 | 8,390 | 3,140 | 2,490 | 2,540 | 5,710 | 5,460 | 7,290 | 6,960 | 2,540 | 5,390 | 3,470 |
| 12 | 4,660 | 7,740 | 2,980 | 2,910 | 2,560 | 8,320 | 5,630 | 7,310 | 5,080 | 3,170 | 4,980 | 3,630 |
| 13 | 4,770 | 7,240 | 2,980 | 2,520 | 2,390 | 11,600 | 5,240 | 7,350 | 4,490 | 2,890 | 4,660 | 3,300 |
| 14 | 4,900 | 6,850 | 2,730 | 2,640 | 2,520 | 14,100 | 4,900 | 7,210 | 4,560 | 2,480 | 4,950 | 3,030 |
| 15 | 4,560 | 6,470 | 2,830 | 2,050 | 2,610 | 20,700 | 5,270 | 6,300 | 4,520 | 1,990 | 4,470 | 3,020 |
| 16 | 4,460 | 6,350 | 2,700 | 2,900 | 2,440 | 22,700 | 5,660 | 6,150 | 3,550 | 2,660 | 4,790 | 2,440 |
| 17 | 4,330 | 5,120 | 2,740 | 2,600 | 2,650 | 24,500 | 6,260 | 5,890 | 3,600 | 1,910 | 4,750 | 2,750 |
| 18 | 3,180 | 4,990 | 2,790 | 2,600 | 2,380 | 24,800 | 6,560 | 5,620 | 4,430 | 2,550 | 4,890 | 2,620 |
| 19 | 3,840 | 4,680 | 3,070 | 3,110 | 2,620 | 24,300 | 6,600 | 4,960 | 3,620 | 2,140 | 4,300 | 2,380 |
| 20 | 3,730 | 4,920 | 2,480 | 3,120 | 2,360 | 22,800 | 6,620 | 4,830 | 3,770 | 2,000 | 4,280 | 2,730 |
| 21 | 4,028 | 4,500 | 2,840 | 2,830 | 2,520 | 20,500 | 7,010 | 4,530 | 3,720 | 2,050 | 4,920 | 2,930 |
| 22 | 3,890 | 4,410 | 2,940 | 3,350 | 2,440 | 18,300 | 7,720 | 4,250 | 3,350 | 1,660 | 5,120 | 2,550 |
| 23 | 4,230 | 3,520 | 2,360 | 2,970 | 2,630 | 16,500 | 8,030 | 4,330 | 3,140 | 2,610 | 4,540 | 2,780 |
| 24 | 4,920 | 3,910 | 2,570 | 3,040 | 2,240 | 15,400 | 7,530 | 5,590 | 3,260 | 2,510 | 4,490 | 3,110 |
| 25 | 4,170 | 4,710 | 3,150 | 3,070 | 2,470 | 15,000 | 7,180 | 9,040 | 3,060 | 2,510 | 4,220 | 3,210 |
| 26 | 4,070 | 4,320 | 3,030 | 2,840 | 2,760 | 14,700 | 6,770 | 13,500 | 3,510 | 2,620 | 3,720 | 4,000 |
| 27 | 4,550 | 3,790 | 2,740 | 2,990 | 2,340 | 14,400 | 6,440 | 15,500 | 3,510 | 2,590 | 3,670 | 3,990 |
| 28 | 4,180 | 3,440 | 2,810 | 2,950 | 2,690 | 14,800 | 6,350 | 16,100 | 3,240 | 2,530 | 3,550 | 4,310 |
| 29 | 4,290 | 2,710 | 2,890 | 3,090 | ------ | 13,200 | 5,250 | 15,100 | 3,140 | 2,650 | 3,470 | 4,060 |
| 30 | 3,870 | 2,800 | 2,790 | 2,920 | ------ | 12,700 | 5,140 | 13,300 | 2,980 | 2,950 | 3,280 | 3,950 |
| 31 | 4,100 | ------ | 2,800 | 2,800 | ------ | 12,000 | ------ | 11,700 | ------ | 2,580 | 4,500 | ------ |
| TOTAL | 144,060 | 189,770 | 84,450 | 88,640 | 72,510 | 378,450 | 206,080 | 244,040 | 157,120 | 79,460 | 122,940 | 112,070 |
| MEAN | 4,647 | 6,326 | 2,724 | 2,861 | 2,590 | 12,210 | 6,865 | 7,872 | 5,237 | 2,563 | 3,966 | 3,736 |
| MAX | 6,260 | 11,600 | 3,140 | 3,360 | 2,890 | 24,800 | 11,600 | 16,100 | 10,100 | 3,620 | 5,670 | 5,570 |
| MIN | 3,180 | 2,710 | 2,120 | 2,160 | 2,290 | 2,340 | 4,900 | 4,330 | 2,900 | 1,860 | 2,000 | 2,380 |
| CFSM | .78 | 1.07 | .46 | .48 | .44 | 2.06 | 1.18 | 1.33 | .88 | .43 | .67 | .63 |
| IN. | .90 | 1.19 | .53 | .56 | .45 | 2.37 | 1.32 | 1.53 | .94 | .50 | .77 | .70 |

CAL YR 1972 TOTAL 2,416,600 MEAN 6,603 MAX 42,500 MIN 2,110 CFSM 1.11 IN 15.16
WTR YR 1973 TOTAL 1,484,820 MEAN 5,162 MAX 24,800 MIN 1,860 CFSM .87 IN 11.82

## 05344500 Mississippi River at Prescott, Wis.

LOCATION.--Lat 44°44'45", long 92°48'00", in sec.9, T.26 N., R.20 W., Pierce County, on left bank at Prescott, 200 ft (61 m) downstream from St. Croix River, 300 ft (91 m) south of Chicago, Burlington & Quincy Railroad bridge, 800 ft (244 m) south of bridge on U.S. Highway 10, and at mile 811.4 (1,305 km) upstream from Ohio River.

DRAINAGE AREA.--44,800 mi² (116,000 km²), approximately.

PERIOD OF RECORD.--June 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 649.50 ft (197.97 m) above mean sea level, datum of 1929. Prior to Aug. 2, 1932, nonrecording gage at railroad bridge 300 ft (91 m) upstream at following datums: June 3, 1928, to Sept. 30, 1929, 19.27 ft (5.873 m) higher; Oct. 1, 1929, to Sept. 30, 1930, 17.68 ft (5.390 m) higher; Oct. 1, 1930, to Aug. 1, 1932, 19.28 ft (5.877 m) higher. Aug. 2, 1932, to Oct. 30, 1938, water-stage recorder at present site at datum 19.28 ft (5.877 m) higher; Nov. 1, 1938, to Sept. 7, 1971, water-stage recorder at present site at datum 50.00 ft (15.240 m) lower.

AVERAGE DISCHARGE.--45 years, 16,011 ft³/s (453 m³/s), 4.88 in/yr (124 mm/yr).

EXTREMES.--Current year: Maximum discharge, 78,300 ft³/s (2,220 m³/s) Mar. 20 (gage height, 33.83 ft or 10.311 m); minimum daily, 5,300 ft³/s (150 m³/s) Dec. 4; minimum gage height, 24.49 ft (7.465 m) Dec. 3.
Period of record: Maximum discharge, 228,000 ft³/s (6,460 m³/s) Apr. 18, 1965 (gage height, 43.11 ft or 13.140 m); minimum daily, 1,380 ft³/s (39.1 m³/s) July 13, 1940; minimum gage height, 15.08 ft (4.596 m) Aug. 29, 1934, present datum.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation by reservoirs, navigation dams, and powerplants at low and medium stages. Flood flow not materially affected by artificial storage.

REVISIONS (WATER YEARS).--WSP 1508: 1941.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20,300 | 18,000 | 12,500 | 8,400 | 10,500 | 9,900 | 47,900 | 29,400 | 38,300 | 12,300 | 11,400 | 12,200 |
| 2 | 19,800 | 19,200 | 11,500 | 8,300 | 9,600 | 10,900 | 46,800 | 38,100 | 37,300 | 12,400 | 11,900 | 12,800 |
| 3 | 19,100 | 22,500 | 9,600 | 10,300 | 9,000 | 11,600 | 45,200 | 36,500 | 36,600 | 12,700 | 11,300 | 13,200 |
| 4 | 19,600 | 24,000 | 5,300 | 10,100 | 9,400 | 11,800 | 43,200 | 31,800 | 35,700 | 12,500 | 10,700 | 12,800 |
| 5 | 19,300 | 27,200 | 5,400 | 9,200 | 9,500 | 16,100 | 40,600 | 33,300 | 34,900 | 12,300 | 10,400 | 12,600 |
| 6 | 19,300 | 30,700 | 7,500 | 8,600 | 9,200 | 16,400 | 39,500 | 34,400 | 33,900 | 12,300 | 9,400 | 12,600 |
| 7 | 18,900 | 33,500 | 6,500 | 8,500 | 8,800 | 17,900 | 38,900 | 35,700 | 32,400 | 12,300 | 10,300 | 13,000 |
| 8 | 18,800 | 33,900 | 6,800 | 8,900 | 8,000 | 20,400 | 37,100 | 36,200 | 31,600 | 11,800 | 10,800 | 13,500 |
| 9 | 18,000 | 33,700 | 6,700 | 8,400 | 8,000 | 21,900 | 36,000 | 35,900 | 30,200 | 10,300 | 10,800 | 13,100 |
| 10 | 17,600 | 33,700 | 7,200 | 8,500 | 8,700 | 25,600 | 33,600 | 36,800 | 28,900 | 9,510 | 12,000 | 12,300 |
| 11 | 18,200 | 32,800 | 9,600 | 8,600 | 8,200 | 28,100 | 32,500 | 37,100 | 27,600 | 10,000 | 13,600 | 11,500 |
| 12 | 18,100 | 31,700 | 11,200 | 8,800 | 8,400 | 31,500 | 31,500 | 36,600 | 26,300 | 10,000 | 14,300 | 10,500 |
| 13 | 17,300 | 30,500 | 10,500 | 8,900 | 9,400 | 36,000 | 29,800 | 36,400 | 24,700 | 10,200 | 14,800 | 9,930 |
| 14 | 17,000 | 29,100 | 10,800 | 8,500 | 8,500 | 43,800 | 28,800 | 36,400 | 23,900 | 9,980 | 15,500 | 9,510 |
| 15 | 16,500 | 29,000 | 10,600 | 8,700 | 6,900 | 53,000 | 28,400 | 35,900 | 21,700 | 10,100 | 15,300 | 9,460 |
| 16 | 15,800 | 28,600 | 10,500 | 9,600 | 6,600 | 61,700 | 28,800 | 34,700 | 20,800 | 10,000 | 15,700 | 9,080 |
| 17 | 15,700 | 27,700 | 7,500 | 9,600 | 6,500 | 68,200 | 27,400 | 32,300 | 19,000 | 10,500 | 15,600 | 8,600 |
| 18 | 14,900 | 26,100 | 8,200 | 9,300 | 6,400 | 73,700 | 28,900 | 31,100 | 18,100 | 10,100 | 14,200 | 8,750 |
| 19 | 14,300 | 25,300 | 9,500 | 8,700 | 7,500 | 76,700 | 30,700 | 29,400 | 17,700 | 8,710 | 14,200 | 9,170 |
| 20 | 14,500 | 24,500 | 10,900 | 9,000 | 8,000 | 78,000 | 31,100 | 27,800 | 17,400 | 8,480 | 13,600 | 9,300 |
| 21 | 14,800 | 24,100 | 10,000 | 9,100 | 7,200 | 77,000 | 32,000 | 26,700 | 17,000 | 8,640 | 13,300 | 10,600 |
| 22 | 15,400 | 23,400 | 9,500 | 10,000 | 8,300 | 74,200 | 32,200 | 26,400 | 16,000 | 8,750 | 13,500 | 9,880 |
| 23 | 15,600 | 21,900 | 9,600 | 11,000 | 9,200 | 70,900 | 32,800 | 25,900 | 14,600 | 8,760 | 16,300 | 10,200 |
| 24 | 15,700 | 21,000 | 9,100 | 10,400 | 9,000 | 67,800 | 33,000 | 25,300 | 14,600 | 9,300 | 15,400 | 10,400 |
| 25 | 16,200 | 20,200 | 9,600 | 10,600 | 8,500 | 64,900 | 32,900 | 26,300 | 14,400 | 9,290 | 13,000 | 10,600 |
| 26 | 16,000 | 20,300 | 10,000 | 10,600 | 8,700 | 62,100 | 32,200 | 28,300 | 13,500 | 8,920 | 12,900 | 11,900 |
| 27 | 16,000 | 19,400 | 9,700 | 10,500 | 8,900 | 59,800 | 31,100 | 31,900 | 12,900 | 8,980 | 12,800 | 13,200 |
| 28 | 16,400 | 17,000 | 8,800 | 10,000 | 8,600 | 58,100 | 30,400 | 35,300 | 12,700 | 9,150 | 12,300 | 11,600 |
| 29 | 16,800 | 15,000 | 9,000 | 9,100 | ------ | 55,400 | 29,700 | 37,500 | 12,200 | 10,200 | 11,700 | 11,700 |
| 30 | 16,900 | 14,000 | 11,100 | 9,000 | ------ | 53,100 | 29,200 | 38,400 | 12,100 | 10,200 | 11,700 | 12,100 |
| 31 | 17,500 | ------ | 10,000 | 9,900 | ------ | 49,700 | ------ | 38,700 | ------ | 10,400 | 11,700 | ------ |
| TOTAL | 530,300 | 758,000 | 285,500 | 289,100 | 235,500 | 1,406.2M | 1,022.2M | 1,012.5M | 696,200 | 319,070 | 400,400 | 336,080 |
| MEAN | 17,110 | 25,270 | 9,210 | 9,326 | 8,411 | 45,360 | 34,070 | 32,660 | 23,210 | 10,290 | 12,920 | 11,200 |
| MAX | 20,300 | 33,900 | 12,500 | 11,000 | 10,500 | 78,000 | 47,900 | 38,700 | 38,300 | 12,700 | 16,300 | 13,500 |
| MIN | 14,300 | 14,000 | 5,300 | 8,300 | 6,400 | 9,900 | 27,400 | 25,300 | 12,100 | 8,480 | 9,400 | 8,600 |
| CFSM | .38 | .56 | .21 | .21 | .19 | 1.01 | .76 | .73 | .52 | .23 | .29 | .25 |
| IN. | .44 | .63 | .24 | .24 | .20 | 1.17 | .85 | .84 | .58 | .26 | .33 | .28 |

CAL YR 1972 TOTAL 10,063,600 MEAN 27,500 MAX 94,800 MIN 5,300 CFSM .61 IN 8.36
WTR YR 1973 TOTAL 7,291,050 MEAN 19,900 MAX 78,000 MIN 5,300 CFSM .45 IN 6.05

M Expressed in thousands.

## 05356000 Chippewa River at Bishops Bridge, near Winter, Wis.

LOCATION.--Lat 45°50'57", long 91°04'44", in sec.23, T.39 N., R.6 W., Sawyer County, on right bank 15 ft (5 m) upstream from highway bridge on County Trunk G, 3.2 mi (5.1 km) downstream from Lake Chippewa Dam, and 3.7 mi (6.0 km) northwest of Winter.

DRAINAGE AREA.--787 mi² (2,038 km²).

PERIOD OF RECORD.--February 1912 to current year. December to April 1913, monthly discharge only, published in WSP 1308.

GAGE.--Water-stage recorder. Altitude of gage is 1,270 ft (387 m), from Lake Chippewa datum. See WSP 1708 or 1728 for history of changes prior to July 23, 1930.

AVERAGE DISCHARGE.--61 years, 716 ft³/s (20.28 m³/s).

EXTREMES.--Current year: Maximum discharge, 2,990 ft³/s (84.7 m³/s) Nov. 10, gage height, 7.50 ft (2.286 m); minimum, 86 ft³/s (2.44 m³/s) Mar. 9, gage height, 3.80 ft (1.158 m); minimum daily 88 ft³/s (2.49 m³/s) Mar. 10.

Period of record: Maximum discharge, 7,520 ft³/s (213 m³/s) Sept. 4, 5, 1914, gage height, 11.05 ft (3.368 m); minimum, 14 ft³/s (0.40 m³/s) Apr. 17-20, 1925, gage height, 3.25 ft (0.991 m).

REMARKS.--Records good. Flow regulated by Moose Lake and Lake Chippewa (see p. 98).

REVISIONS (WATER YEARS).--WSP 1208: Drainage area. WSP 1438: 1913(M), 1915-18(M), 1919, 1920-23(M), 1924, 1925(M), 1927(M), 1928, 1929-30(M), 1939(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Sept. 3.)

| | | | |
|---|---|---|---|
| 3.8 | 86 | 6.0 | 1,370 |
| 4.2 | 196 | 7.0 | 2,430 |
| 4.6 | 350 | 8.0 | 3,770 |
| 5.0 | 560 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 227 | 919 | 1,530 | 1,390 | 1,210 | 319 | 169 | 1,020 | 2,250 | 444 | 970 | 1,130 |
| 2 | 308 | 946 | 1,530 | 1,380 | 1,210 | 319 | 170 | 1,040 | 2,030 | 444 | 985 | 1,130 |
| 3 | 914 | 927 | 1,530 | 1,370 | 1,200 | 320 | 170 | 1,030 | 1,390 | 442 | 966 | 1,170 |
| 4 | 1,120 | 905 | 1,520 | 1,370 | 1,190 | 321 | 164 | 1,780 | 1,280 | 440 | 959 | 1,140 |
| 5 | 1,120 | 1,150 | 1,520 | 1,370 | 1,190 | 321 | 174 | 2,310 | 1,060 | 440 | 896 | 1,130 |
| 6 | 1,520 | 1,660 | 1,520 | 1,360 | 1,180 | 323 | 239 | 2,310 | 816 | 440 | 703 | 1,110 |
| 7 | 2,040 | 1,350 | 1,510 | 1,350 | 1,180 | 334 | 238 | 2,300 | 753 | 440 | 777 | 1,100 |
| 8 | 2,030 | 806 | 1,500 | 1,350 | 1,170 | 337 | 238 | 2,470 | 940 | 438 | 978 | 1,100 |
| 9 | 1,760 | 931 | 1,500 | 1,340 | 1,170 | 290 | 237 | 2,590 | 1,180 | 442 | 1,340 | 1,090 |
| 10 | 2,010 | 2,030 | 1,500 | 1,340 | 1,170 | 88 | 238 | 2,610 | 1,160 | 439 | 1,460 | 1,060 |
| 11 | 1,850 | 2,840 | 1,490 | 1,330 | 1,150 | 120 | 239 | 2,600 | 1,150 | 438 | 1,450 | 1,070 |
| 12 | 1,680 | 2,330 | 1,490 | 1,330 | 1,140 | 128 | 238 | 2,580 | 1,020 | 440 | 1,440 | 891 |
| 13 | 1,340 | 1,890 | 1,480 | 1,320 | 1,140 | 168 | 238 | 2,570 | 865 | 440 | 1,440 | 400 |
| 14 | 1,220 | 1,590 | 1,470 | 1,310 | 1,130 | 253 | 239 | 2,390 | 882 | 436 | 1,440 | 350 |
| 15 | 1,220 | 1,600 | 1,470 | 1,310 | 1,130 | 292 | 248 | 1,660 | 740 | 438 | 1,450 | 344 |
| 16 | 1,020 | 1,600 | 1,460 | 1,300 | 1,120 | 224 | 262 | 1,400 | 613 | 438 | 1,480 | 342 |
| 17 | 881 | 1,590 | 1,440 | 1,290 | 1,120 | 205 | 257 | 1,020 | 604 | 437 | 1,450 | 338 |
| 18 | 881 | 1,580 | 1,450 | 1,290 | 1,110 | 222 | 253 | 1,020 | 603 | 438 | 1,440 | 337 |
| 19 | 881 | 1,580 | 1,440 | 1,280 | 1,090 | 195 | 249 | 872 | 486 | 435 | 1,430 | 336 |
| 20 | 898 | 1,580 | 1,440 | 1,270 | 1,090 | 169 | 250 | 714 | 420 | 435 | 1,440 | 320 |
| 21 | 891 | 1,570 | 1,440 | 1,270 | 1,000 | 169 | 244 | 713 | 452 | 435 | 1,440 | 209 |
| 22 | 888 | 1,570 | 1,430 | 1,260 | 662 | 177 | 245 | 717 | 451 | 435 | 1,240 | 147 |
| 23 | 891 | 1,570 | 1,420 | 1,260 | 319 | 172 | 240 | 717 | 450 | 523 | 1,100 | 144 |
| 24 | 898 | 1,560 | 1,420 | 1,260 | 319 | 174 | 238 | 732 | 447 | 511 | 1,110 | 145 |
| 25 | 899 | 1,560 | 1,420 | 1,250 | 319 | 184 | 1,010 | 1,330 | 451 | 471 | 1,100 | 203 |
| 26 | 898 | 1,550 | 1,410 | 1,240 | 327 | 182 | 1,000 | 2,320 | 451 | 808 | 1,110 | 281 |
| 27 | 904 | 1,550 | 1,410 | 1,230 | 319 | 178 | 997 | 2,500 | 449 | 724 | 1,100 | 345 |
| 28 | 902 | 1,540 | 1,400 | 1,230 | 320 | 178 | 993 | 2,480 | 448 | 727 | 1,110 | 340 |
| 29 | 901 | 1,540 | 1,400 | 1,230 | ------ | 173 | 988 | 2,350 | 448 | 719 | 1,110 | 338 |
| 30 | 902 | 1,540 | 1,390 | 1,230 | ------ | 171 | 985 | 2,260 | 445 | 891 | 1,100 | 338 |
| 31 | 911 | ------ | 1,390 | 1,220 | ------ | 168 | ------ | 2,250 | ------ | 976 | 1,120 | ------ |
| TOTAL | 34,717 | 45,354 | 45,340 | 40,330 | 26,654 | 6,598 | 11,052 | 56,635 | 26,091 | 15,791 | 36,532 | 18,568 |
| MEAN | 1,120 | 1,512 | 1,463 | 1,301 | 952 | 213 | 368 | 1,763 | 869 | 509 | 1,178 | 618 |
| MAX | 2,040 | 2,840 | 1,530 | 1,390 | 1,210 | 337 | 1,010 | 2,610 | 2,250 | 976 | 1,460 | 1,170 |
| MIN | 227 | 806 | 1,390 | 1,220 | 318 | 88 | 164 | 714 | 420 | 435 | 896 | 144 |

CAL YR 1972 TOTAL 375,565 MEAN 1,026 MAX 5,900 MIN 93
WTR YR 1973 TOTAL 361,162 MEAN 989 MAX 2,840 MIN 88

## 05356500 Chippewa River near Bruce, Wis.

LOCATION.--Lat 45°27'08", long 91°15'39", in SE¼ sec.5, T.34 N., R.7 E., Rusk County, on right bank 1.0 mi (1.6 km) east of Bruce and 1.0 mi (1.6 km) downstream from Thornapple River.

DRAINAGE AREA.--1,630 mi² (4,220 km²), approximately.

PERIOD OF RECORD.--December 1913 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,059.62 ft (322.972 m) above mean sea level. Prior to May 28, 1935, nonrecording gage at railroad bridge 0.8 mi (1.3 km) upstream at datum 2.30 ft (0.701 m) higher.

AVERAGE DISCHARGE.--59 years, 1,453 ft³/s (41.15 m³/s).

EXTREMES.--Current year: Maximum discharge, 17,100 ft³/s (484 m³/s) Mar. 15, gage height, 14.94 ft (4.554 m); minimum, 728 ft³/s (20.6 m³/s) Sept. 15, gage height, 2.00 ft (0.610 m).

Period of record: Maximum discharge, 25,800 ft³/s (731 m³/s) Sept. 1, 1941, gage height, 20.46 ft (6.236 m), from floodmarks, from rating curve extended above 20,000 ft³/s (566 m³/s); minimum, 155 ft³/s (4.39 m³/s) June 10, 1932, gage height, 0.9 ft (0.274 m), site and datum then in use.

REMARKS.--Records good except those for winter period, which are fair. Flow from 48 percent of the drainage area regulated by Moose Lake and Lake Chippewa (see p. 98).

REVISIONS (WATER YEARS).--WSP 875: 1936-38. WSP 1278: Drainage area. WSP 1308: 1922, 1937(M). WSP 1508: 1914-26(M), 1927, 1928-31(M), 1932, 1933(M), 1934-36, 1938.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Mar. 29 to Apr. 22, June 9 to July 31; stage-discharge relation affected by ice Nov. 29 to Mar. 10.)

| | | | |
|---|---|---|---|
| 2.0 | 728 | 8.0 | 6,410 |
| 3.0 | 1,420 | 11.0 | 10,460 |
| 5.0 | 3,040 | 14.0 | 15,510 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,420 | 1,390 | 1,900 | 2,000 | 1,700 | 1,000 | 1,570 | 2,370 | 3,150 | 977 | 1,630 | 2,480 |
| 2 | 1,190 | 1,770 | 1,600 | 1,900 | 1,700 | 1,000 | 1,560 | 3,900 | 3,070 | 988 | 1,590 | 2,400 |
| 3 | 1,330 | 3,120 | 1,500 | 1,800 | 1,800 | 1,000 | 1,560 | 4,760 | 2,690 | 970 | 1,570 | 2,280 |
| 4 | 2,660 | 2,970 | 1,400 | 1,800 | 1,800 | 1,000 | 1,460 | 4,600 | 2,460 | 919 | 1,510 | 2,590 |
| 5 | 2,730 | 2,580 | 1,400 | 1,800 | 1,800 | 1,100 | 1,380 | 4,570 | 3,190 | 985 | 1,400 | 2,410 |
| 6 | 2,500 | 2,620 | 1,400 | 1,800 | 1,800 | 1,200 | 1,350 | 4,220 | 2,870 | 892 | 1,350 | 2,180 |
| 7 | 2,960 | 3,050 | 1,400 | 1,800 | 1,800 | 1,400 | 1,190 | 4,810 | 2,300 | 886 | 1,540 | 1,940 |
| 8 | 2,930 | 3,140 | 1,400 | 1,800 | 1,800 | 1,900 | 1,720 | 4,330 | 2,220 | 869 | 2,100 | 1,870 |
| 9 | 2,730 | 2,870 | 1,500 | 1,800 | 1,800 | 3,000 | 1,130 | 4,800 | 2,[illegible] | 859 | 2,460 | 1,830 |
| 10 | 2,400 | 2,780 | 1,500 | 1,800 | 1,800 | 3,300 | 1,140 | 5,380 | 2,130 | 923 | 2,580 | 1,800 |
| 11 | 2,540 | 3,870 | 1,600 | 1,800 | 1,800 | 4,190 | 1,180 | 5,540 | 1,990 | 877 | 2,540 | 1,760 |
| 12 | 2,360 | 3,870 | 1,700 | 1,800 | 1,700 | 6,920 | 1,160 | 5,580 | 1,890 | 898 | 2,220 | 1,740 |
| 13 | 2,110 | 3,160 | 1,700 | 1,800 | 1,700 | 8,990 | 1,140 | 5,190 | 1,650 | 903 | 2,130 | 1,550 |
| 14 | 1,810 | 2,590 | 1,800 | 1,800 | 1,700 | 11,500 | 1,120 | 4,760 | 1,460 | 908 | 2,190 | 906 |
| 15 | 1,730 | 2,360 | 1,800 | 1,800 | 1,700 | 14,800 | 1,230 | 4,120 | 1,400 | 910 | 2,150 | 832 |
| 16 | 1,730 | 2,270 | 1,900 | 1,800 | 1,700 | 13,100 | 2,070 | 3,480 | 1,260 | 980 | 2,240 | 850 |
| 17 | 1,460 | 2,260 | 1,900 | 1,800 | 1,700 | 9,020 | 2,810 | 2,610 | 1,190 | 884 | 2,330 | 885 |
| 18 | 1,380 | 2,120 | 1,900 | 1,800 | 1,700 | 5,630 | 2,760 | 2,140 | 1,160 | 895 | 2,230 | 886 |
| 19 | 1,350 | 2,090 | 1,900 | 1,800 | 1,700 | 4,190 | 2,500 | 2,060 | 1,140 | 896 | 2,190 | 864 |
| 20 | 1,340 | 2,060 | 1,900 | 1,800 | 1,700 | 3,200 | 2,380 | 1,840 | 997 | 906 | 2,160 | 808 |
| 21 | 1,410 | 2,040 | 1,900 | 1,800 | 1,600 | 2,780 | 2,170 | 1,720 | 957 | 901 | 2,120 | 868 |
| 22 | 1,490 | 1,960 | 1,900 | 1,800 | 1,500 | 2,550 | 1,870 | 1,650 | 948 | 907 | 2,100 | 971 |
| 23 | 1,620 | 2,030 | 2,000 | 1,800 | 1,000 | 2,380 | 1,670 | 1,750 | 962 | 1,050 | 1,890 | 971 |
| 24 | 1,770 | 1,980 | 2,000 | 1,800 | 960 | 2,440 | 1,540 | 1,840 | 963 | 1,920 | 1,810 | 895 |
| 25 | 1,650 | 1,980 | 2,000 | 1,800 | 960 | 2,450 | 1,690 | 3,040 | 957 | 1,780 | 1,790 | 968 |
| 26 | 1,580 | 1,990 | 2,000 | 1,800 | 980 | 2,440 | 2,850 | 5,610 | 1,020 | 1,480 | 1,770 | 1,330 |
| 27 | 1,520 | 1,970 | 2,000 | 1,700 | 980 | 2,320 | 2,060 | 6,310 | 1,030 | 1,580 | 1,770 | 2,400 |
| 28 | 1,470 | 1,930 | 2,000 | 1,700 | 980 | 2,190 | 2,040 | 5,280 | 956 | 1,640 | 1,750 | 2,420 |
| 29 | 1,440 | 1,900 | 2,000 | 1,700 | ------ | 2,020 | 2,010 | 4,370 | 977 | 1,620 | 1,720 | 1,870 |
| 30 | 1,410 | 1,900 | 2,000 | 1,700 | ------ | 1,880 | 2,000 | 3,750 | 931 | 1,560 | 1,730 | 1,760 |
| 31 | 1,400 | ------ | 2,000 | 1,700 | ------ | 1,700 | ------ | 3,320 | ------ | 1,620 | 2,020 | ------ |
| TOTAL | 57,420 | 72,650 | 54,900 | 55,600 | 43,860 | 122,870 | 50,930 | 118,940 | 50,148 | 34,173 | 60,580 | 47,316 |
| MEAN | 1,852 | 2,422 | 1,771 | 1,794 | 1,566 | 3,964 | 1,698 | 3,837 | 1,672 | 1,102 | 1,954 | 1,577 |
| MAX | 2,960 | 3,870 | 2,000 | 2,000 | 1,800 | 14,800 | 2,810 | 6,310 | 3,190 | 1,920 | 2,580 | 2,590 |
| MIN | 1,190 | 1,390 | 1,400 | 1,700 | 960 | 1,000 | 1,120 | 1,650 | 997 | 859 | 1,350 | 832 |

CAL YR 1972 TOTAL 695,781 MEAN 1,901 MAX 8,130 MIN 536
WTR YR 1973 TOTAL 769,387 MEAN 2,100 MAX 14,800 MIN 832

## 05358300 Pine Creek near Ojibo, Wis.

LOCATION.--Lat 45°54'12", long 90°41'00", in SE¼ sec.36, T.40 N., R.3 W., Sawyer County, Chequamegon National Forest, on right bank just downstream from culvert on County Trunk Highway BB, 2.0 mi (3.2 km) upstream from mouth and 5.0 mi (8.0 km) northeast of Ojibo.

DRAINAGE AREA.--37.8 mi² (97.9 km²).

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1967-70. October 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,400 ft (427 m), from topographic map.

EXTREMES.--Current year: Maximum discharge, not determined; minimum daily 12 ft³/s (.340 m³/s) Dec. 26-30.

Period of record: Maximum discharge, 670 ft³/s (19.0 m³/s) Aug. 18, 1972, gage height, 5.00 ft (1.524 m), discharge not determined for 1973 water year; minimum daily, 12 ft³/s (.340 m³/s) Dec. 26, 1972.

REMARKS.--Records fair except those for period of no gage-height record and winter period, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 53 | 33 | 24 | 14 | 24 | 18 | 240 | 160 | 50 | 24 | 22 | 50 |
| 2 | 45 | 82 | 22 | 14 | 24 | 19 | 200 | 330 | 54 | 24 | 19 | 37 |
| 3 | 69 | 174 | 21 | 15 | 25 | 21 | 170 | 310 | 54 | 24 | 19 | 34 |
| 4 | 107 | 146 | 21 | 15 | 25 | 25 | 150 | 280 | 70 | 22 | 17 | 45 |
| 5 | 88 | 117 | 20 | 15 | 25 | 28 | 120 | 240 | 125 | 21 | 16 | 38 |
| 6 | 82 | 100 | 19 | 15 | 25 | 32 | 110 | 200 | 115 | 20 | 18 | 30 |
| 7 | 78 | 125 | 19 | 15 | 23 | 45 | 94 | 170 | 98 | 19 | 30 | 26 |
| 8 | 57 | 174 | 18 | 15 | 21 | 94 | 84 | 143 | 98 | 19 | 72 | 24 |
| 9 | 51 | 151 | 17 | 15 | 19 | 98 | 76 | 140 | 83 | 20 | 76 | 23 |
| 10 | 45 | 124 | 17 | 15 | 19 | 95 | 65 | 151 | 65 | 24 | 45 | 22 |
| 11 | 53 | 110 | 16 | 14 | 18 | 110 | 62 | 145 | 53 | 26 | 33 | 21 |
| 12 | 45 | 96 | 16 | 14 | 19 | 150 | 60 | 135 | 46 | 24 | 28 | 20 |
| 13 | 43 | 82 | 16 | 14 | 19 | 140 | 62 | 110 | 40 | 26 | 33 | 19 |
| 14 | 41 | 78 | 15 | 14 | 20 | 250 | 40 | 89 | 36 | 23 | 53 | 19 |
| 15 | 34 | 63 | 15 | 14 | 20 | 300 | 140 | 73 | 33 | 21 | 38 | 19 |
| 16 | 37 | 56 | 15 | 14 | 21 | 270 | 210 | 71 | 33 | 20 | 40 | 19 |
| 17 | 35 | 50 | 14 | 15 | 22 | 240 | 230 | 66 | 33 | 19 | 32 | 19 |
| 18 | 33 | 45 | 14 | 17 | 22 | 210 | 230 | 61 | 31 | 19 | 33 | 19 |
| 19 | 30 | 45 | 14 | 34 | 22 | 160 | 210 | 56 | 25 | 19 | 42 | 19 |
| 20 | 31 | 42 | 14 | 40 | 22 | 140 | 190 | 53 | 27 | 19 | 41 | 19 |
| 21 | 43 | 42 | 13 | 34 | 22 | 130 | 190 | 51 | 30 | 18 | 31 | 20 |
| 22 | 45 | 42 | 13 | 35 | 22 | 130 | 160 | 50 | 36 | 18 | 26 | 20 |
| 23 | 53 | 37 | 13 | 32 | 22 | 130 | 140 | 54 | 33 | 18 | 25 | 20 |
| 24 | 44 | 34 | 13 | 30 | 21 | 130 | 110 | 69 | 30 | 20 | 24 | 25 |
| 25 | 42 | 34 | 13 | 26 | 20 | 160 | 90 | 176 | 26 | 21 | 24 | 20 |
| 26 | 40 | 32 | 12 | 27 | 19 | 190 | 72 | 234 | 31 | 21 | 22 | 70 |
| 27 | 34 | 30 | 12 | 26 | 19 | 240 | 60 | 193 | 31 | 24 | 22 | 122 |
| 28 | 39 | 28 | 12 | 25 | 19 | 310 | 52 | 179 | 30 | 30 | 20 | 76 |
| 29 | 34 | 26 | 12 | 23 | ------ | 340 | 50 | 90 | 28 | 28 | 19 | 51 |
| 30 | 33 | 25 | 12 | 23 | ------ | 300 | 48 | 71 | 27 | 26 | 21 | 42 |
| 31 | 30 | ------ | 13 | 23 | ------ | 260 | ------ | 62 | ------ | 23 | 44 | ------ |
| TOTAL | 1,587 | 2,215 | 495 | 658 | 584 | 4,887 | 3,746 | 4,171 | 1,492 | 680 | 985 | 1,013 |
| MEAN | 51.6 | 73.8 | 15.6 | 21.0 | 21.6 | 155 | 125 | 135 | 49.7 | 21.9 | 31.8 | 33.8 |
| MAX | 107 | 174 | 24 | 40 | 25 | 340 | 240 | 330 | 125 | 30 | 76 | 122 |
| MIN | 30 | 25 | 12 | 14 | 14 | 18 | 48 | 50 | 27 | 18 | 18 | 19 |
| CFSM | 1.29 | 1.95 | .41 | .56 | .57 | 4.10 | 3.31 | 3.57 | 1.31 | .58 | .84 | .89 |
| IN. | 1.44 | 2.15 | .48 | .54 | .54 | 4.73 | 3.69 | 4.10 | 1.47 | .67 | .97 | 1.00 |

CAL YR 1972 TOTAL 28,347 MEAN 77.6 MAX 637 MIN 12 CFSM 2.05 IN 27.94
WTR YR 1973 TOTAL 27,384 MEAN 75.0 MAX 340 MIN 12 CFSM 1.98 IN 26.97

NOTE.--No gage-height record Dec. 4 to May 7.

## 05358500 Flambeau River at Babbs Island, near Winter, Wis.

LOCATION.--Lat 45°46'07", long 90°45'41", in SE¼ sec.17, T.38 N., R.3 W., Sawyer County, on right bank 3.6 mi (5.8 km) upstream from Connors Creek, 11.5 mi (18.5 km) upstream from South Fork Flambeau River, 13 mi (21 km) east of Winter, and at mile 61.9 (99.6 km).

DRAINAGE AREA.--1,000 mi² (2,590 km²).

PERIOD OF RECORD.--August 1929 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Altitude of gage is 1,330 ft (405 m), from river profile map. Prior to Oct. 1, 1934, at bridge 300 ft (91 m) upstream at datum 9.0 ft (2.7 m) lower. Oct. 1, 1934, to Sept. 8, 1938, at bridge 300 ft (91 m) upstream at present datum.

AVERAGE DISCHARGE.--44 years, 990 ft³/s (28.04 m³/s).

EXTREMES.--Current year: Maximum discharge, 5,440 ft³/s (154 m³/s) Mar. 16, gage height, 6.29 ft (1.917 m); maximum gage height, 6.52 ft (1.987 m) Mar. 15, backwater from ice; minimum discharge, 744 ft³/s (21.1 m³/s) Sept. 20, gage height, 1.61 ft (0.49 m).

Period of record: Maximum discharge, 9,440 ft³/s (267 m³/s) June 25, 1946, gage height, 9.45 ft (2.880 m); minimum, 86 ft³/s (2.44 m³/s) Oct. 21, 22, 1948, gage height, 0.20 ft (0.061 m); minimum daily, 118 ft³/s (3.34 m³/s) Oct. 10, 1948.

REMARKS.--Records good except those for winter periods or backwater from vegetation, which are fair. Flow regulated by Rest Lake and Flambeau Flowage reservoirs (see p. 98).

REVISIONS (WATER YEARS).--WSP 855: 1935-36. WSP 1175: Drainage area. WSP 1508: 1930.

Rating table except periods of backwater from vegetation (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 2 to Mar. 15.)

| | | | |
|---|---|---|---|
| 1.6 | 750 | 3.0 | 1,850 |
| 2.0 | 1,020 | 4.0 | 2,900 |
| 2.5 | 1,420 | 6.0 | 5,320 |
| | | 7.0 | 6,530 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,510 | 1,410 | 1,300 | 1,600 | 1,200 | 1,400 | 1,590 | 1,420 | 1,820 | 1,140 | 957 | 1,060 |
| 2 | 1,430 | 1,620 | 1,300 | 1,300 | 1,200 | 1,400 | 1,550 | 3,130 | 1,720 | 967 | 971 | 990 |
| 3 | 1,490 | 2,420 | 1,100 | 1,400 | 1,300 | 1,500 | 1,520 | 3,790 | 1,680 | 1,010 | 839 | 1,020 |
| 4 | 2,130 | 2,380 | 1,000 | 1,400 | 1,300 | 1,500 | 1,470 | 3,120 | 1,620 | 1,010 | 842 | 1,120 |
| 5 | 1,980 | 2,070 | 940 | 1,300 | 1,300 | 1,400 | 1,410 | 3,010 | 2,680 | 1,010 | 873 | 1,040 |
| 6 | 2,160 | 2,210 | 940 | 1,200 | 1,300 | 1,800 | 1,350 | 2,820 | 2,780 | 929 | 792 | 979 |
| 7 | 2,150 | 2,140 | 900 | 1,300 | 1,300 | 2,300 | 1,530 | 2,800 | 2,740 | 977 | 902 | 986 |
| 8 | 1,880 | 3,100 | 880 | 1,300 | 1,200 | 2,200 | 1,510 | 2,880 | 2,670 | 982 | 1,230 | 874 |
| 9 | 2,150 | 3,250 | 840 | 1,300 | 1,200 | 2,100 | 1,410 | 2,990 | 2,530 | 972 | 1,410 | 862 |
| 10 | 1,890 | 2,770 | 900 | 1,300 | 1,200 | 2,000 | 1,370 | 3,020 | 2,380 | 1,040 | 1,080 | 853 |
| 11 | 1,900 | 2,850 | 940 | 1,400 | 1,200 | 2,500 | 1,310 | 3,170 | 2,230 | 1,040 | 975 | 854 |
| 12 | 1,950 | 2,460 | 940 | 1,400 | 1,100 | 3,000 | 1,430 | 3,060 | 1,960 | 1,030 | 968 | 876 |
| 13 | 1,850 | 2,140 | 980 | 1,500 | 1,100 | 3,300 | 1,490 | 2,850 | 1,820 | 935 | 1,010 | 859 |
| 14 | 1,910 | 1,890 | 1,000 | 1,500 | 1,100 | 4,000 | 1,340 | 2,600 | 1,490 | 1,010 | 1,160 | 816 |
| 15 | 1,770 | 1,580 | 1,000 | 1,500 | 1,100 | 5,200 | 1,510 | 2,520 | 1,340 | 999 | 1,180 | 826 |
| 16 | 1,670 | 1,530 | 1,100 | 1,500 | 1,100 | 5,360 | 2,110 | 2,320 | 1,450 | 999 | 1,020 | 833 |
| 17 | 1,560 | 1,540 | 1,100 | 1,400 | 1,000 | 3,560 | 2,460 | 2,420 | 1,330 | 995 | 1,080 | 834 |
| 18 | 1,610 | 1,480 | 1,200 | 1,400 | 1,000 | 1,680 | 2,350 | 2,420 | 1,250 | 963 | 1,070 | 842 |
| 19 | 1,370 | 1,470 | 1,200 | 1,300 | 1,100 | 1,590 | 2,580 | 2,270 | 1,170 | 968 | 1,080 | 818 |
| 20 | 1,430 | 1,470 | 1,200 | 1,300 | 1,100 | 1,490 | 2,710 | 2,140 | 1,250 | 961 | 1,060 | 796 |
| 21 | 1,470 | 1,440 | 1,200 | 1,400 | 1,100 | 1,420 | 2,480 | 2,060 | 1,190 | 960 | 967 | 817 |
| 22 | 1,470 | 1,420 | 1,200 | 1,400 | 1,100 | 1,310 | 2,740 | 1,630 | 1,360 | 957 | 939 | 904 |
| 23 | 1,570 | 1,430 | 1,200 | 1,400 | 1,200 | 1,410 | 2,370 | 1,720 | 1,210 | 932 | 915 | 838 |
| 24 | 1,660 | 1,430 | 1,100 | 1,400 | 1,200 | 1,400 | 2,100 | 1,790 | 1,160 | 961 | 853 | 861 |
| 25 | 1,510 | 1,390 | 1,100 | 1,300 | 1,200 | 1,480 | 2,080 | 2,660 | 1,120 | 988 | 887 | 884 |
| 26 | 1,380 | 1,430 | 1,100 | 1,100 | 1,200 | 1,630 | 1,740 | 3,530 | 1,170 | 993 | 890 | 1,070 |
| 27 | 1,560 | 1,380 | 1,200 | 1,100 | 1,300 | 1,820 | 1,500 | 3,550 | 1,080 | 1,130 | 865 | 1,830 |
| 28 | 1,490 | 1,360 | 1,200 | 1,100 | 1,300 | 1,770 | 1,360 | 3,110 | 1,220 | 951 | 874 | 1,650 |
| 29 | 1,470 | 1,350 | 1,200 | 1,100 | ------ | 1,840 | 1,210 | 2,590 | 1,070 | 949 | 844 | 1,220 |
| 30 | 1,340 | 1,370 | 1,300 | 1,200 | ------ | 1,820 | 1,160 | 2,440 | 1,070 | 982 | 849 | 1,170 |
| 31 | 1,340 | ------ | 1,200 | 1,200 | ------ | 1,650 | ------ | 2,050 | ------ | 928 | 969 | ------ |
| TOTAL | 52,050 | 55,840 | 33,840 | 41,300 | 33,000 | 67,030 | 52,740 | 81,480 | 49,560 | 30,700 | 30,341 | 29,382 |
| MEAN | 1,679 | 1,861 | 1,092 | 1,332 | 1,179 | 2,162 | 1,758 | 2,626 | 1,652 | 990 | 979 | 979 |
| MAX | 2,160 | 3,250 | 1,300 | 1,600 | 1,300 | 5,360 | 2,740 | 3,550 | 2,780 | 1,140 | 1,410 | 1,830 |
| MIN | 1,340 | 1,360 | 880 | 1,100 | 1,000 | 1,310 | 1,160 | 1,420 | 1,070 | 928 | 792 | 796 |

CAL YR 1972 TOTAL 486,370 MEAN 1,329 MAX 5,460 MIN 609
WTR YR 1973 TOTAL 557,183 MEAN 1,527 MAX 5,360 MIN 792

NOTE.--Backwater from aquatic vegetation July 24 to Sept. 27.

## CHIPPEWA RIVER BASIN

### 05359500 South Fork Flambeau River near Phillips, Wis.

LOCATION.--Lat 45°42'08", long 90°36'58", in NW¼ SW¼ sec.10, T.37 N., R.2 W., Price County, on left bank at downstream side of bridge on County Trunk W, 0.4 mi (0.6 km) downstream from Big Elk River and 12 mi (19 km) west of Phillips.

DRAINAGE AREA.--615 mi² (1,593 km²).

PERIOD OF RECORD.--August 1929 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Altitude of gage is 1,360 ft (415 m), by barometer. Prior to Jan. 11, 1954, nonrecording gage at site 600 ft (183 m) downstream at same datum. Jan. 12, 1954, to Sept. 4, 1968, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--44 years, 594 ft³/s (16.82 m³/s), 13.12 in/yr (333 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,510 ft³/s (156 m³/s) Mar. 16, gage height, 11.52 ft (3.511 m); minimum, 195 ft³/s (5.52 m³/s) Aug. 6, gage height, 5.08 ft (1.548 m).

Period of record: Maximum discharge, 10,200 ft³/s (289 m³/s) June 18, 1943, gage height, 14.32 ft (4.365 m); minimum, 39 ft³/s (1.10 m³/s) Aug. 31, Sept. 3-5, 1933.

REMARKS.--Records good except those for winter period, which are fair.

REVISIONS (WATER YEARS).--WSP 975: 1934. WSP 1175: Drainage area. WSP 1308: 1931-34(M), 1936-42(M), 1944-45(M), 1947-50(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Mar. 17-20; stage-discharge relation affected by ice Nov. 24 to Mar. 12.)

| | | | |
|---|---|---|---|
| 5.0 | 189 | 8.0 | 1,880 |
| 5.5 | 364 | 9.0 | 2,780 |
| 6.0 | 580 | 10.0 | 3,730 |
| 7.0 | 1,140 | 12.0 | 6,230 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,490 | 778 | 500 | 430 | 640 | 620 | 1,680 | 1,100 | 1,540 | 561 | 237 | 562 |
| 2 | 1,190 | 1,050 | 500 | 460 | 640 | 660 | 1,630 | 2,530 | 1,490 | 551 | 228 | 559 |
| 3 | 1,230 | 1,840 | 470 | 450 | 660 | 580 | 1,580 | 3,660 | 1,500 | 512 | 219 | 678 |
| 4 | 1,810 | 2,360 | 420 | 440 | 660 | 280 | 1,490 | 3,830 | 1,690 | 457 | 210 | 790 |
| 5 | 2,200 | 2,390 | 400 | 440 | 680 | 580 | 1,400 | 3,650 | 2,490 | 418 | 202 | 667 |
| 6 | 2,290 | 2,200 | 380 | 430 | 700 | 580 | 1,290 | 3,130 | 3,560 | 365 | 201 | 575 |
| 7 | 2,270 | 2,100 | 360 | 420 | 760 | 800 | 1,140 | 2,580 | 3,770 | 277 | 220 | 495 |
| 8 | 2,470 | 2,300 | 350 | 400 | 800 | 1,200 | 1,130 | 2,350 | 3,400 | 267 | 309 | 417 |
| 9 | 2,310 | 2,370 | 350 | 390 | 820 | 1,400 | 1,070 | 2,530 | 2,640 | 263 | 431 | 372 |
| 10 | 1,690 | 2,130 | 350 | 390 | 840 | 1,500 | 1,000 | 3,450 | 2,070 | 302 | 406 | 346 |
| 11 | 1,420 | 1,940 | 350 | 390 | 840 | 2,100 | 843 | 3,500 | 1,640 | 314 | 371 | 323 |
| 12 | 1,240 | 1,740 | 350 | 390 | 840 | 3,000 | 760 | 3,090 | 1,380 | 300 | 339 | 306 |
| 13 | 1,110 | 1,590 | 360 | 380 | 820 | 3,420 | 731 | 2,380 | 1,210 | 289 | 348 | 295 |
| 14 | 1,030 | 1,300 | 360 | 380 | 820 | 3,890 | 709 | 2,040 | 1,150 | 280 | 402 | 279 |
| 15 | 974 | 1,080 | 370 | 380 | 820 | 4,850 | 835 | 1,890 | 1,200 | 281 | 369 | 258 |
| 16 | 938 | 951 | 370 | 390 | 800 | 5,360 | 1,590 | 1,620 | 1,290 | 269 | 324 | 240 |
| 17 | 890 | 970 | 380 | 400 | 780 | 4,810 | 2,180 | 1,760 | 1,410 | 257 | 303 | 231 |
| 18 | 850 | 858 | 390 | 410 | 780 | 3,900 | 2,550 | 1,570 | 1,610 | 247 | 287 | 225 |
| 19 | 800 | 751 | 400 | 420 | 760 | 2,970 | 2,500 | 1,430 | 1,330 | 243 | 284 | 220 |
| 20 | 757 | 710 | 410 | 430 | 760 | 2,320 | 2,270 | 1,310 | 1,030 | 238 | 273 | 215 |
| 21 | 800 | 649 | 410 | 450 | 740 | 1,950 | 1,730 | 1,200 | 809 | 226 | 257 | 224 |
| 22 | 827 | 591 | 410 | 470 | 720 | 1,830 | 1,490 | 1,090 | 794 | 223 | 253 | 273 |
| 23 | 944 | 605 | 410 | 480 | 700 | 1,770 | 1,390 | 1,030 | 728 | 216 | 252 | 286 |
| 24 | 1,030 | 600 | 410 | 490 | 680 | 1,720 | 1,270 | 1,410 | 671 | 216 | 252 | 290 |
| 25 | 1,040 | 640 | 410 | 520 | 660 | 1,750 | 1,130 | 2,730 | 674 | 228 | 250 | 308 |
| 26 | 1,020 | 660 | 410 | 560 | 640 | 1,790 | 1,030 | 3,590 | 786 | 229 | 250 | 703 |
| 27 | 972 | 580 | 430 | 580 | 640 | 1,890 | 968 | 3,470 | 688 | 257 | 247 | 1,360 |
| 28 | 950 | 500 | 420 | 600 | 620 | 1,980 | 895 | 2,780 | 656 | 285 | 235 | 1,330 |
| 29 | 896 | 480 | 470 | 620 | ------ | 1,950 | 843 | 2,170 | 621 | 282 | 224 | 1,020 |
| 30 | 839 | 500 | 450 | 640 | ------ | 1,890 | 777 | 1,840 | 593 | 271 | 224 | 781 |
| 31 | 873 | ------ | 410 | 640 | ------ | 1,810 | ------ | 1,660 | ------ | 251 | 477 | ------ |
| TOTAL | 39,150 | 37,213 | 12,460 | 14,250 | 20,620 | 65,040 | 39,951 | 72,670 | 44,327 | 9,373 | 8,902 | 14,626 |
| MEAN | 1,263 | 1,240 | 402 | 460 | 736 | 2,100 | 1,332 | 2,344 | 1,478 | 302 | 287 | 486 |
| MAX | 2,470 | 2,390 | 500 | 640 | 840 | 5,360 | 2,550 | 3,830 | 3,770 | 561 | 477 | 1,360 |
| MIN | 757 | 480 | 350 | 380 | 620 | 280 | 709 | 1,030 | 593 | 216 | 201 | 215 |
| CFSM | 2.05 | 2.02 | .65 | .75 | 1.20 | 3.41 | 2.17 | 3.81 | 2.40 | .49 | .47 | .79 |
| IN. | 2.37 | 2.25 | .75 | .86 | 1.25 | 3.94 | 2.42 | 4.40 | 2.68 | .57 | .54 | .88 |

CAL YR 1972 TOTAL 324,031 MEAN 885 MAX 5,240 MIN 202 CFSM 1.44 IN 19.60
WTR YR 1973 TOTAL 378,634 MEAN 1,037 MAX 5,360 MIN 201 CFSM 1.69 IN 22.98

NOTE.--No gage-height record May 17 to June 18.

## 05360500 Flambeau River near Bruce, Wis.

LOCATION.--Lat 45°22'21", long 91°12'34", in lot 7 of NW¼ sec.2, T.33 N., R.7 W., Rusk County, on right bank 2.5 mi (4.0 km) downstream from Thornapple powerplant, 6.0 mi (9.7 km) upstream from mouth, and 7.0 mi (11.3 km) southeast of Bruce.

DRAINAGE AREA.--1,897 mi² (4,915 km²).

PERIOD OF RECORD.--August 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage, 1,060 ft (323 m), by river survey, WSP 417.

AVERAGE DISCHARGE.--22 years, 1,844 ft³/s (52.22 m³/s).

EXTREMES.--Current year: Maximum discharge, 12,300 ft³/s (348 m³/s) Mar. 17, gage height, 8.89 ft (2.710 m); minimum, 590 ft³/s (16.7 m³/s) Aug. 18, gage height, 2.73 ft (0.832 m).

Period of record: Maximum discharge, 17,400 ft³/s (493 m³/s) May 1, 1954, gage height, 10.90 ft (3.322 m); minimum, about 100 ft³/s (2.83 m³/s) Aug. 7, 9, 1957, gage height, 2.06 ft (0.628 m).

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by several powerplants above station and by Rest Lake and Flambeau Flowage reservoirs (see p. 98).

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 1 to Mar. 13.)

| | | | |
|---|---|---|---|
| 3.1 | 905 | 4.0 | 1,930 |
| 3.4 | 1,210 | 5.0 | 3,480 |
| 3.7 | 1,550 | 7.0 | 7,610 |
| | | 9.0 | 12,600 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.110 | 2.080 | 1.900 | 1.900 | 2.000 | 2.000 | 4.100 | 3.340 | 3.450 | 1.690 | 1.320 | 1.740 |
| 2 | 3.680 | 3.290 | 2.000 | 2.000 | 2.000 | 2.300 | 4.030 | 5.600 | 3.260 | 1.990 | 1.220 | 2.290 |
| 3 | 3.060 | 3.930 | 2.200 | 2.100 | 2.000 | 2.500 | 3.470 | 8.970 | 2.840 | 1.770 | 1.310 | 2.190 |
| 4 | 3.730 | 5.460 | 2.200 | 2.000 | 2.000 | 2.900 | 3.270 | 8.300 | 2.900 | 1.530 | 1.030 | 1.700 |
| 5 | 5.080 | 5.510 | 2.000 | 2.000 | 2.000 | 3.100 | 3.420 | 7.870 | 4.270 | 1.460 | 1.030 | 1.910 |
| 6 | 5.870 | 4.940 | 1.600 | 1.900 | 2.000 | 3.500 | 3.280 | 7.090 | 7.990 | 1.470 | 1.230 | 1.900 |
| 7 | 5.810 | 5.830 | 1.500 | 1.900 | 1.900 | 4.100 | 3.040 | 6.050 | 6.460 | 1.460 | 1.480 | 1.560 |
| 8 | 4.900 | 5.540 | 1.500 | 1.800 | 1.900 | 4.600 | 2.800 | 6.130 | 6.190 | 1.260 | 1.180 | 1.730 |
| 9 | 4.780 | 6.370 | 1.600 | 1.400 | 1.800 | 6.200 | 2.780 | 6.630 | 4.720 | 1.240 | 1.680 | 1.380 |
| 10 | 4.340 | 6.480 | 1.500 | 1.800 | 1.700 | 6.800 | 2.850 | 7.300 | 4.180 | 1.470 | 2.030 | 1.180 |
| 11 | 4.120 | 5.580 | 1.500 | 1.900 | 1.600 | 7.800 | 2.410 | 8.030 | 4.310 | 1.290 | 1.680 | 1.120 |
| 12 | 3.510 | 5.800 | 1.400 | 1.900 | 1.500 | 8.200 | 2.320 | 7.550 | 4.050 | 1.450 | 1.240 | 1.160 |
| 13 | 3.230 | 4.610 | 1.400 | 1.900 | 1.500 | 8.000 | 2.250 | 6.160 | 3.700 | 1.320 | 1.350 | 1.160 |
| 14 | 3.270 | 4.840 | 1.500 | 1.900 | 1.400 | 9.620 | 2.530 | 5.340 | 2.950 | 1.480 | 1.550 | 1.280 |
| 15 | 3.140 | 3.640 | 1.600 | 2.000 | 1.400 | 11.600 | 2.420 | 4.810 | 2.650 | 1.170 | 1.640 | 1.260 |
| 16 | 2.970 | 2.920 | 1.500 | 2.100 | 1.400 | 11.600 | 4.820 | 4.730 | 1.960 | 1.290 | 1.630 | 1.180 |
| 17 | 2.770 | 2.650 | 1.500 | 2.300 | 1.500 | 10.600 | 5.910 | 4.770 | 2.460 | 1.330 | 1.530 | 982 |
| 18 | 2.780 | 2.410 | 1.400 | 1.800 | 1.500 | 8.270 | 6.110 | 4.310 | 2.850 | 1.360 | 1.450 | 980 |
| 19 | 2.370 | 2.580 | 1.600 | 1.900 | 1.500 | 6.250 | 5.740 | 4.470 | 3.220 | 1.200 | 1.760 | 937 |
| 20 | 2.420 | 2.570 | 1.700 | 2.200 | 1.600 | 5.070 | 6.040 | 3.960 | 2.660 | 1.070 | 1.320 | 1.220 |
| 21 | 2.570 | 2.420 | 1.700 | 2.400 | 1.600 | 4.540 | 4.830 | 3.550 | 2.440 | 1.200 | 1.250 | 1.080 |
| 22 | 2.410 | 2.400 | 1.600 | 2.300 | 1.600 | 4.010 | 4.420 | 3.370 | 2.270 | 1.090 | 1.270 | 1.100 |
| 23 | 2.950 | 1.920 | 1.500 | 2.300 | 1.700 | 3.630 | 4.780 | 3.110 | 2.240 | 1.260 | 1.290 | 1.090 |
| 24 | 2.830 | 2.030 | 1.500 | 2.200 | 1.800 | 3.970 | 4.180 | 3.010 | 2.480 | 1.290 | 1.120 | 1.180 |
| 25 | 3.290 | 2.470 | 1.600 | 2.100 | 1.800 | 3.960 | 3.710 | 4.030 | 1.930 | 1.190 | 1.200 | 1.270 |
| 26 | 3.080 | 2.340 | 1.400 | 2.000 | 1.800 | 3.700 | 3.140 | 6.900 | 2.070 | 1.380 | 1.180 | 2.080 |
| 27 | 2.700 | 2.530 | 1.500 | 1.900 | 1.900 | 4.090 | 3.260 | 7.530 | 1.990 | 1.320 | 1.220 | 3.120 |
| 28 | 2.870 | 2.350 | 1.500 | 1.900 | 1.900 | 4.420 | 2.490 | 6.640 | 1.900 | 1.480 | 1.240 | 3.920 |
| 29 | 2.970 | 2.190 | 1.600 | 2.000 | ------ | 4.470 | 2.480 | 5.480 | 2.000 | 1.580 | 1.170 | 3.520 |
| 30 | 2.370 | 1.800 | 1.700 | 2.000 | ------ | 4.190 | 2.260 | 4.670 | 1.900 | 1.250 | 997 | 2.370 |
| 31 | 2.680 | ------ | 1.800 | 2.000 | ------ | 4.200 | ------ | 4.370 | ------ | 1.300 | 1.210 | ------ |
| TOTAL | 103.980 | 107.900 | 50.500 | 62.200 | 48.300 | 170.190 | 108.340 | 174.960 | 98.290 | 42.560 | 41.647 | 49.597 |
| MEAN | 3.354 | 3.597 | 1.629 | 2.006 | 1.725 | 5.490 | 3.611 | 5.644 | 3.276 | 1.373 | 1.343 | 1.653 |
| MAX | 5.880 | 6.480 | 2.200 | 2.400 | 2.000 | 11.600 | 6.110 | 8.970 | 7.990 | 1.990 | 2.030 | 3.920 |
| MIN | 2.370 | 1.800 | 1.400 | 1.800 | 1.400 | 2.000 | 2.250 | 3.010 | 1.900 | 1.070 | 997 | 937 |

CAL YR 1972 TOTAL 892.336 MEAN 2.438 MAX 10.500 MIN 889
WTR YR 1973 TOTAL 1,050.464 MEAN 2.900 MAX 11.600 MIN 937

## CHIPPEWA RIVER BASIN

### 05362000 Jump River at Sheldon, Wis.

LOCATION.--Lat 45°18'29", long 90°57'23", in sec.26, T.33 N., R.5 W., Rusk County, on right bank just downstream from highway bridge in Sheldon, 1,500 ft (460 m) upstream from Shoulder Creek and 11 mi (18 km) upstream from mouth.

DRAINAGE AREA.--574 mi² (1,487 km²).

PERIOD OF RECORD.--July 1915 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,092.75 ft (333.070 m) above mean sea level. Prior to Feb. 9, 1939, and Sept. 1, 1941 to Apr. 1, 1953, Feb. 18, 1954 to Sept. 27, 1964, nonrecording gage at same site and datum. Apr. 2, 1953 to Feb. 18, 1954, nonrecording gage in creamery wellhouse 400 ft (122 m) upstream at same datum. Feb. 9, 1939 to Aug. 31, 1941, and from Sept. 27, 1964, water-stage recorder at present site and datum.

AVERAGE DISCHARGE.--58 years, 516 ft³/s (14.61 m³/s), 12.21 in/yr (310 mm/yr).

EXTREMES.--Current year: Maximum discharge, 13,100 ft³/s (371 m³/s) Mar. 15, gage height, 14.17 ft (3.709 m); minimum, 58 ft³/s (1.64 m³/s) Aug. 28-30, gage height, 3.42 ft (1.042 m).
Period of record: Maximum discharge observed, 46,000 ft³/s (1,300 m³/s) Aug. 31, 1941, gage height, 18.8 ft (5.73 m) from floodmark, from rating curve extended above 13,000 ft³/s (368 m³/s) on basis of contracted-opening measurement of peak flow; minimum observed, 11 ft³/s (0.31 m³/s) Dec. 18, 1943, gage height, 3.99 ft (1.216 m).

REMARKS.--Records good except those for winter period, which are fair.

REVISIONS (WATER YEARS).--WSP 975: 1938. WSP 1175: Drainage area. WSP 1438: 1916-17(M), 1919(M), 1920, 1921(M), 1922, 1923-26(M), 1927, 1928-31(M), 1932, 1933-37(M), 1945-46(M), 1948-50(M).

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Oct. 1-5, Mar. 22 to Apr. 30; stage-discharge relation affected by ice Nov. 25 to Mar. 13.)

Oct. 1 to Apr. 29

| | | | |
|---|---|---|---|
| 3.8 | 108 | 6.5 | 1,540 |
| 4.0 | 155 | 8.0 | 3,290 |
| 4.6 | 342 | 10.0 | 6,810 |
| 5.5 | 756 | 13.0 | 18,000 |

Apr. 30 to Sept. 30

| | | | |
|---|---|---|---|
| 3.4 | 54 | 6.0 | 1,230 |
| 3.6 | 83 | 7.0 | 2,130 |
| 4.0 | 184 | 9.0 | 4,880 |
| 4.5 | 362 | 11.0 | 9,300 |
| 5.0 | 680 | 12.0 | 12,200 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,840 | 512 | 140 | 220 | 210 | 150 | 457 | 2,740 | 664 | 123 | 127 | 319 |
| 2 | 1,320 | 930 | 170 | 280 | 280 | 140 | 835 | 8,550 | 540 | 130 | 101 | 426 |
| 3 | 1,340 | 3,210 | 140 | 340 | 190 | 280 | 826 | 9,980 | 460 | 126 | 89 | 391 |
| 4 | 3,620 | 3,450 | 140 | 350 | 140 | 230 | 814 | 6,870 | 623 | 116 | 78 | 560 |
| 5 | 3,460 | 2,750 | 150 | 340 | 170 | 389 | 806 | 4,190 | 1,170 | 105 | 72 | 570 |
| 6 | 2,980 | 1,690 | 150 | 330 | 140 | 688 | 750 | 2,770 | 946 | 95 | 76 | 412 |
| 7 | 2,530 | 1,960 | 140 | 310 | 140 | 1,480 | 725 | 1,900 | 635 | 87 | 76 | 287 |
| 8 | 1,850 | 2,440 | 140 | 280 | 140 | 3,880 | 678 | 2,380 | 486 | 82 | 97 | 200 |
| 9 | 1,340 | 2,360 | 140 | 250 | 130 | 3,500 | 687 | 2,690 | 492 | 79 | 134 | 167 |
| 10 | 1,030 | 1,810 | 140 | 220 | 120 | 3,480 | 529 | 3,310 | 460 | 78 | 136 | 142 |
| 11 | 864 | 1,430 | 140 | 210 | 120 | 6,490 | 485 | 3,220 | 360 | 78 | 120 | 130 |
| 12 | 740 | 1,140 | 140 | 200 | 120 | 9,680 | 551 | 2,870 | 387 | 73 | 99 | 112 |
| 13 | 600 | 943 | 140 | 200 | 120 | 10,200 | 566 | 2,130 | 270 | 73 | 89 | 99 |
| 14 | 620 | 782 | 140 | 200 | 120 | 11,400 | 556 | 1,550 | 270 | 76 | 84 | 89 |
| 15 | 542 | 649 | 140 | 210 | 120 | 12,800 | 640 | 1,180 | 198 | 76 | 82 | 87 |
| 16 | 485 | 530 | 140 | 210 | 120 | 9,330 | 2,470 | 963 | 184 | 74 | 82 | 82 |
| 17 | 420 | 526 | 140 | 210 | 120 | 3,980 | 5,330 | 864 | 214 | 72 | 183 | 80 |
| 18 | 360 | 462 | 140 | 260 | 120 | 2,940 | 4,480 | 761 | 387 | 68 | 236 | 78 |
| 19 | 357 | 340 | 140 | 340 | 120 | 2,680 | 3,120 | 671 | 315 | 74 | 147 | 73 |
| 20 | 324 | 357 | 140 | 470 | 120 | 1,990 | 2,150 | 663 | 246 | 79 | 100 | 78 |
| 21 | 366 | 320 | 140 | 460 | 120 | 1,660 | 1,650 | 548 | 196 | 78 | 89 | 78 |
| 22 | 440 | 242 | 140 | 420 | 120 | 1,470 | 1,310 | 488 | 332 | 74 | 82 | 73 |
| 23 | 443 | 216 | 140 | 480 | 120 | 1,360 | 1,040 | 452 | 243 | 68 | 76 | 76 |
| 24 | 1,310 | 200 | 140 | 580 | 120 | 1,320 | 848 | 445 | 221 | 68 | 72 | 91 |
| 25 | 1,310 | 190 | 140 | 440 | 120 | 1,360 | 720 | 2,820 | 183 | 72 | 68 | 99 |
| 26 | 1,100 | 190 | 140 | 420 | 130 | 1,400 | 631 | 4,340 | 165 | 91 | 66 | 246 |
| 27 | 910 | 190 | 140 | 360 | 130 | 1,370 | 527 | 3,680 | 160 | 110 | 64 | 758 |
| 28 | 740 | 190 | 140 | 330 | 130 | 1,260 | 450 | 2,420 | 149 | 99 | 61 | 980 |
| 29 | 587 | 190 | 170 | 280 | ------- | 1,130 | 388 | 1,550 | 130 | 103 | 60 | 685 |
| 30 | 580 | 190 | 140 | 250 | ------- | 1,030 | 354 | 1,070 | 132 | 127 | 61 | 505 |
| 31 | 520 | ------- | 140 | 220 | ------- | 940 | ------- | 787 | ------- | 122 | 174 | ------- |
| TOTAL | 34,575 | 31,830 | 4,640 | 10,130 | 3,430 | 98,780 | 36,224 | 77,932 | 11,842 | 2,776 | 3,887 | 7,909 |
| MEAN | 1,140 | 1,034 | 151 | 327 | 137 | 3,184 | 1,207 | 2,514 | 368 | 89.5 | 99.6 | 264 |
| MAX | 3,620 | 3,450 | 140 | 660 | 210 | 12,800 | 5,330 | 9,980 | 1,170 | 130 | 236 | 980 |
| MIN | 324 | 190 | 140 | 280 | 120 | 150 | 354 | 452 | 132 | 68 | 60 | 78 |
| CFSM | 2.00 | 1.80 | .26 | .57 | .24 | 5.55 | 2.10 | 4.38 | .64 | .16 | .17 | .46 |
| IN. | 2.31 | 2.41 | .18 | .66 | .25 | 6.40 | 2.35 | 5.05 | .72 | .18 | .20 | .51 |

CAL YR 1972 TOTAL 278,551 MEAN 760 MAX 10,300 MIN 60 CFSM 1.32 IN 17.53
WTR YR 1973 TOTAL 322,925 MEAN 885 MAX 12,800 MIN 68 CFSM 1.54 IN 20.93

PEAK DISCHARGE (BASE, 3,500 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10- 4 | 1500 | 8.72 | 4,190 | 4-17 | 1400 | 9.19 | 5,520 |
| 11- 3 | 2200 | 8.17 | 3,680 | 5- 3 | 0300 | 11.48 | 10,600 |
| 3-15 | 1000 | 12.17 | 13,100 | 5-26 | 1000 | 8.81 | 4,540 |

## 05365500 Chippewa River at Chippewa Falls, Wis.

LOCATION.--Lat 44°55'37", long 91°24'33", in lot 1, sec.12, T.28 N., R.9 W., Chippewa County, on right bank at Chippewa Falls, 1.0 mi (1.6 km) downstream from Duncan Creek.

DRAINAGE AREA.--5,600 mi² (14,500 km²), approximately.

PERIOD OF RECORD.--June 1888 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 798.46 ft (243.371 m) above mean sea level. Prior to January 1914, nonrecording gage, and January 1914 to June 19, 1932, water-stage recorder at site 1 mi (1.6 km) upstream at different datum. June 19, 1932, to current year, water-stage recorder at present site and datum.

AVERAGE DISCHARGE.--85 years, 5,113 ft³/s (144.8 m³/s).

EXTREMES.--Current year: Maximum discharge, 58,600 ft³/s (1,660 m³/s) Mar. 15, gage height, 18.91 ft (5.764 m); minimum daily, 313 ft³/s (8.86 m³/s) Aug. 5.

Period of record: Maximum discharge, 102,000 ft³/s (2,890 m³/s) Sept. 1, 1941, gage height, 24.8 ft (7.56 m); minimum, 22 ft³/s (0.623 m³/s) Apr. 2, 1934, gage height, 0.63 ft (0.192 m); minimum daily, 40 ft³/s (1.13 m³/s) Feb. 4, 1917. Maximum stage known, 26.94 ft (8.211 m) Sept. 10, 1884, site and datum in use to June 1932.

REMARKS.--Records good. Considerable regulation by Moose Lake, Lake Chippewa, Rest Lake, Flambeau Flowage, and Lake Wissota reservoirs (see p. 98). Diurnal fluctuation caused by hydroelectric plant 1.1 mi (1.8 km) upstream.

REVISIONS (WATER YEARS).--WSP 785: 1934(M). WSP 1508: 1897, 1905, 1918(M), 1924(M).

Rating table (gage height, in feet. and discharge, in cubic feet per second).

| | | | |
|---|---|---|---|
| 1.4 | 287 | 8.0 | 11,200 |
| 1.5 | 325 | 12.0 | 24,500 |
| 2.0 | 583 | 16.0 | 42,400 |
| 3.0 | 1,440 | 19.0 | 59,100 |
| 5.0 | 4,440 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11.500 | 5.670 | 4.840 | 4.880 | 4.260 | 5.430 | 8.220 | 13.100 | 9.860 | 1.400 | 2.440 | 3.380 |
| 2 | 9.710 | 6.370 | 3.380 | 4.390 | 4.960 | 4.940 | 8.260 | 32.500 | 8.870 | 4.580 | 3.890 | 5.310 |
| 3 | 7.960 | 12.900 | 4.040 | 5.410 | 4.380 | 5.140 | 8.430 | 41.900 | 8.500 | 4.720 | 4.050 | 6.040 |
| 4 | 12.500 | 17.600 | 2.860 | 6.810 | 4.410 | 4.090 | 7.670 | 37.000 | 8.430 | 1.450 | 3.520 | 5.110 |
| 5 | 16.700 | 16.900 | 4.250 | 4.840 | 4.730 | 4.940 | 6.990 | 24.700 | 11.100 | 3.830 | 313 | 5.590 |
| 6 | 15.800 | 13.100 | 2.510 | 4.240 | 4.480 | 6.050 | 5.680 | 21.900 | 18.600 | 3.960 | 2.790 | 5.360 |
| 7 | 14.200 | 13.700 | 3.640 | 4.800 | 4.370 | 7.380 | 7.330 | 16.900 | 16.200 | 985 | 3.860 | 5.180 |
| 8 | 14.000 | 18.500 | 4.490 | 4.720 | 4.390 | 8.500 | 5.840 | 17.100 | 11.700 | 1.090 | 3.090 | 3.740 |
| 9 | 11.500 | 18.600 | 4.300 | 5.180 | 4.270 | 9.780 | 6.140 | 18.300 | 11.000 | 3.650 | 3.020 | 2.950 |
| 10 | 10.200 | 15.900 | 3.100 | 5.020 | 3.870 | 9.810 | 6.640 | 22.600 | 8.920 | 2.740 | 7.100 | 3.870 |
| 11 | 9.970 | 14.200 | 3.280 | 6.060 | 3.320 | 13.600 | 5.790 | 23.400 | 7.280 | 3.000 | 5.100 | 3.760 |
| 12 | 9.770 | 14.100 | 6.100 | 5.560 | 4.520 | 34.000 | 5.090 | 23.100 | 9.890 | 2.970 | 4.020 | 3.330 |
| 13 | 7.890 | 13.300 | 4.140 | 5.240 | 5.340 | 41.300 | 5.090 | 18.500 | 6.370 | 2.700 | 3.850 | 3.440 |
| 14 | 7.710 | 10.100 | 3.500 | 5.050 | 5.320 | 47.500 | 5.190 | 15.200 | 6.230 | 1.930 | 3.480 | 3.540 |
| 15 | 7.650 | 9.400 | 4.290 | 5.280 | 5.120 | 56.200 | 6.220 | 13.600 | 5.760 | 1.300 | 4.000 | 1.100 |
| 16 | 6.320 | 8.140 | 3.500 | 4.190 | 4.920 | 55.000 | 12.700 | 11.000 | 5.840 | 2.860 | 3.860 | 759 |
| 17 | 7.520 | 6.650 | 4.940 | 5.030 | 4.910 | 46.800 | 23.700 | 10.000 | 3.810 | 2.250 | 4.200 | 2.660 |
| 18 | 5.260 | 6.150 | 3.930 | 5.650 | 3.210 | 30.300 | 23.600 | 10.200 | 4.540 | 2.760 | 4.810 | 2.630 |
| 19 | 4.910 | 6.540 | 5.080 | 4.770 | 6.830 | 23.400 | 16.900 | 9.850 | 6.040 | 2.490 | 3.360 | 2.190 |
| 20 | 5.520 | 5.990 | 4.000 | 5.680 | 5.030 | 15.400 | 14.700 | 8.430 | 5.300 | 2.110 | 3.760 | 2.570 |
| 21 | 5.680 | 6.390 | 4.670 | 6.390 | 5.140 | 13.700 | 14.100 | 7.540 | 3.830 | 1.750 | 3.590 | 2.950 |
| 22 | 4.430 | 5.890 | 4.410 | 6.200 | 4.630 | 12.300 | 10.300 | 8.810 | 4.650 | 833 | 4.380 | 1.770 |
| 23 | 6.540 | 5.110 | 4.290 | 6.490 | 4.830 | 9.890 | 9.360 | 7.500 | 4.000 | 2.770 | 4.320 | 778 |
| 24 | 8.670 | 4.560 | 3.950 | 5.630 | 4.530 | 10.000 | 9.800 | 7.580 | 2.150 | 4.040 | 3.940 | 3.030 |
| 25 | 9.390 | 5.940 | 4.480 | 5.230 | 2.850 | 10.200 | 7.650 | 11.500 | 4.990 | 3.480 | 2.520 | 3.870 |
| 26 | 8.580 | 5.470 | 4.470 | 6.410 | 3.940 | 10.200 | 6.090 | 25.900 | 3.330 | 3.810 | 1.750 | 4.930 |
| 27 | 7.270 | 6.140 | 4.580 | 5.130 | 5.030 | 10.100 | 6.760 | 26.600 | 4.670 | 3.940 | 3.680 | 7.750 |
| 28 | 7.290 | 6.430 | 4.340 | 4.710 | 4.510 | 10.100 | 7.190 | 21.600 | 3.540 | 2.160 | 3.710 | 8.410 |
| 29 | 6.880 | 4.700 | 4.010 | 5.050 | ------ | 10.000 | 6.420 | 15.100 | 3.340 | 3.320 | 3.460 | 8.480 |
| 30 | 6.040 | 4.440 | 4.580 | 4.950 | ------ | 9.940 | 5.290 | 13.000 | 4.040 | 3.580 | 2.670 | 8.100 |
| 31 | 6.230 | ------ | 4.670 | 4.850 | ------ | 9.750 | ------ | 12.000 | ------ | 3.680 | 4.090 | ------ |
| TOTAL | 273.590 | 286.850 | 128.540 | 164.460 | 125.940 | 546.660 | 273.140 | 546.410 | 211.980 | 86.130 | 112.543 | 121.777 |
| MEAN | 8.825 | 9.628 | 4.146 | 5.305 | 4.498 | 17.630 | 9.105 | 17.630 | 7.066 | 2.779 | 3.630 | 4.059 |
| MAX | 16.700 | 18.600 | 6.100 | 6.810 | 5.340 | 56.200 | 23.700 | 41.900 | 18.600 | 4.720 | 7.100 | 8.480 |
| MIN | 4.430 | 4.440 | 2.510 | 4.190 | 2.850 | 4.090 | 5.090 | 7.500 | 2.150 | 833 | 313 | 759 |

CAL YR 1972 TOTAL 2,435.671 MEAN 6.655 MAX 38.400 MIN 362
WTR YR 1973 TOTAL 2,880.828 MEAN 7.890 MAX 56.200 MIN 313

## 05367426 Red Cedar River near Cameron, Wis.

LOCATION.--Lat 45°23'20", long 91°45'55", SW¼ NW¼ sec.32, T.34 N., R.11 W., Barron County, on downstream side of bridge on town road, 0.8 mi (1.3 km) upstream of Cranberry Creek, 1.6 mi (2.6 km) southwest of Cameron and 4.3 mi (6.9 km) east of Barron.

DRAINAGE AREA.--453 mi² (1,173 km²).

PERIOD OF RECORD.--June 1971 to September 1973 (discontinued).

GAGE.--Nonrecording gage. Altitude of gage is 1,060 ft (323 m) from topographic map. April 1966 to September 1970, nonrecording gage 2.1 mi (3.4 km) upstream at different datum.

EXTREMES.--Current year: Maximum discharge, 1,230 ft³/s (34.8 m³/s) Mar. 13, gage height, 8.00 ft (2.438 m); minimum daily, 194 ft³/s (5.49 m³/s) Aug. 3, 5.

Period of record: Maximum discharge, 1,860 ft³/s (52.7 m³/s) July 23, 1972, gage height, 9.21 ft (2.81 m); minimum, 179 ft³/s (5.07 m³/s) July 17, 1971, gage height, 5.14 ft (1.567 m).

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 408 | 388 | 340 | 290 | 320 | 320 | 541 | 434 | 605 | 277 | 221 | 317 |
| 2 | 396 | 462 | 320 | 280 | 330 | 310 | 541 | 488 | 593 | 280 | 197 | 353 |
| 3 | 422 | 470 | 290 | 280 | 340 | 310 | 492 | 499 | 610 | 274 | 194 | 353 |
| 4 | 450 | 486 | 290 | 280 | 350 | 300 | 480 | 502 | 681 | 274 | 197 | 350 |
| 5 | 481 | 458 | 290 | 280 | 340 | 297 | 381 | 514 | 626 | 274 | 194 | 343 |
| 6 | 506 | 438 | 290 | 290 | 330 | 297 | 353 | 502 | 618 | 277 | 215 | 327 |
| 7 | 541 | 454 | 290 | 270 | 320 | 466 | 388 | 495 | 593 | 277 | 261 | 317 |
| 8 | 525 | 442 | 290 | 260 | 310 | 649 | 388 | 499 | 554 | 277 | 360 | 314 |
| 9 | 506 | 436 | 290 | 250 | 310 | 593 | 385 | 492 | 470 | 274 | 280 | 307 |
| 10 | 502 | 430 | 300 | 250 | 310 | 484 | 385 | 585 | 411 | 274 | 236 | 310 |
| 11 | 488 | 422 | 300 | 240 | 320 | 1,210 | 367 | 597 | 363 | 271 | 227 | 307 |
| 12 | 481 | 403 | 290 | 240 | 330 | 1,190 | 353 | 605 | 370 | 261 | 233 | 307 |
| 13 | 470 | 392 | 290 | 240 | 340 | 1,230 | 343 | 589 | 388 | 264 | 239 | 300 |
| 14 | 462 | 385 | 290 | 250 | 350 | 1,220 | 327 | 580 | 385 | 268 | 239 | 293 |
| 15 | 446 | 378 | 290 | 250 | 350 | 1,220 | 314 | 563 | 374 | 264 | 236 | 293 |
| 16 | 446 | 360 | 270 | 250 | 350 | 1,190 | 360 | 533 | 363 | 258 | 261 | 297 |
| 17 | 434 | 356 | 270 | 250 | 360 | 1,180 | 367 | 529 | 343 | 236 | 271 | 297 |
| 18 | 434 | 353 | 270 | 250 | 370 | 1,040 | 363 | 514 | 350 | 236 | 271 | 300 |
| 19 | 415 | 346 | 270 | 260 | 360 | 1,005 | 367 | 498 | 343 | 227 | 277 | 293 |
| 20 | 415 | 343 | 290 | 270 | 370 | 945 | 367 | 411 | 343 | 218 | 274 | 280 |
| 21 | 419 | 337 | 290 | 280 | 363 | 854 | 388 | 367 | 337 | 212 | 284 | 290 |
| 22 | 415 | 343 | 290 | 290 | 360 | 825 | 374 | 411 | 327 | 203 | 321 | 280 |
| 23 | 422 | 330 | 290 | 290 | 350 | 748 | 363 | 442 | 307 | 203 | 363 | 310 |
| 24 | 415 | 327 | 290 | 290 | 340 | 770 | 363 | 630 | 277 | 236 | 363 | 310 |
| 25 | 411 | 327 | 230 | 300 | 340 | 720 | 367 | 850 | 274 | 274 | 353 | 304 |
| 26 | 403 | 330 | 240 | 320 | 340 | 681 | 363 | 890 | 277 | 274 | 340 | 388 |
| 27 | 400 | 337 | 240 | 320 | 340 | 597 | 360 | 875 | 280 | 264 | 330 | 374 |
| 28 | 385 | 330 | 240 | 320 | 330 | 614 | 363 | 820 | 277 | 258 | 307 | 307 |
| 29 | 385 | 324 | 240 | 310 | ------ | 614 | 353 | 729 | 277 | 242 | 287 | 297 |
| 30 | 378 | 334 | 240 | 300 | ------ | 601 | 353 | 674 | 274 | 242 | 304 | 280 |
| 31 | 374 | ------ | 240 | 300 | ------ | 580 | ------ | 645 | ------ | 233 | 307 | ------ |
| TOTAL | 13,620 | 11,545 | 8,320 | 8,540 | 9,540 | 23,021 | 11,429 | 17,768 | 12,218 | 7,982 | 8,442 | 9,398 |
| MEAN | 439 | 385 | 268 | 275 | 341 | 743 | 381 | 573 | 407 | 255 | 272 | 313 |
| MAX | 541 | 488 | 340 | 320 | 380 | 1,230 | 541 | 890 | 626 | 280 | 363 | 388 |
| MIN | 370 | 324 | 230 | 240 | 310 | 297 | 314 | 367 | 274 | 203 | 194 | 280 |

CAL YR 1972 TOTAL 143,318 MEAN 392 MAX 1,860 MIN 194
WTR YR 1973 TOTAL 141,743 MEAN 388 MAX 1,230 MIN 194

NOTE.--No gage-height record Oct. 1 to Dec. 1.

## 05368000 Hay River at Wheeler, Wis.

LOCATION.--Lat 45°02'52", long 91°54'39", in SW¼ sec.25, T.30 N., R.13 W., Dunn County, on right bank 25 ft (7.6 m) downstream from highway bridge in Wheeler, 1.8 mi (2.9 km) upstream from Otter Creek, and 2.4 mi (3.9 km) downstream from South Fork Hay River.

DRAINAGE AREA.--426 mi² (1,103 km²).

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 889.30 ft (271.059 m), revised, above mean sea level. Prior to Mar. 25, 1951, nonrecording gage.

AVERAGE DISCHARGE.--23 years, 288 ft³/s (0.156 m³/s), 9.18 in/yr (233 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,790 ft³/s (107 m³/s) Mar. 13, gage height, 10.06 ft (3.066 m); minimum daily, 190 ft³/s (5.38 m³/s) Dec. 11, 12.

Period of record: Maximum discharge, 13,600 ft³/s (385 m³/s) Mar. 31, 1967, gage height, 15.04 ft (4.584 m), from rating curve extended above 9,000 ft³/s (255 m³/s); minimum, 55 ft³/s (1.56 m³/s) Mar. 13, 1954, gage height, 2.32 ft (0.707 m), result of freezeup.

Maximum stage known since 1915, 16.6 ft (5.06 m) in April 1934, from floodmarks.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS.--WSP 1338: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Mar. 20 to Apr. 16, May 17 to June 3; stage-discharge relation affected by ice Nov. 30 to Feb. 3, Feb. 8 to Mar. 19.)

| | | | |
|---|---|---|---|
| 2.7 | 182 | 6.0 | 1,310 |
| 3.0 | 242 | 8.0 | 2,250 |
| 4.0 | 536 | 10.0 | 3,730 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 319 | 315 | 260 | 270 | 250 | 260 | 399 | 565 | 443 | 257 | 231 | 317 |
| 2 | 305 | 401 | 240 | 270 | 260 | 260 | 416 | 1,110 | 412 | 249 | 227 | 288 |
| 3 | 327 | 746 | 250 | 250 | 260 | 270 | 408 | 1,040 | 394 | 241 | 219 | 277 |
| 4 | 471 | 607 | 240 | 240 | 258 | 268 | 367 | 697 | 388 | 248 | 212 | 278 |
| 5 | 432 | 473 | 230 | 230 | 235 | 380 | 367 | 557 | 437 | 243 | 294 | 265 |
| 6 | 384 | 421 | 220 | 230 | 272 | 330 | 354 | 506 | 400 | 244 | 214 | 260 |
| 7 | 380 | 407 | 200 | 230 | 250 | 370 | 356 | 487 | 385 | 244 | 220 | 255 |
| 8 | 354 | 422 | 200 | 230 | 250 | 520 | 342 | 584 | 385 | 240 | 218 | 251 |
| 9 | 327 | 414 | 200 | 230 | 240 | 900 | 333 | 574 | 385 | 235 | 220 | 247 |
| 10 | 314 | 402 | 200 | 230 | 240 | 970 | 322 | 746 | 369 | 240 | 231 | 241 |
| 11 | 328 | 390 | 190 | 220 | 250 | 1,230 | 319 | 744 | 353 | 236 | 227 | 238 |
| 12 | 339 | 379 | 190 | 220 | 250 | 2,490 | 323 | 614 | 351 | 234 | 227 | 233 |
| 13 | 321 | 349 | 200 | 230 | 260 | 3,610 | 388 | 523 | 336 | 232 | 220 | 230 |
| 14 | 311 | 331 | 200 | 230 | 270 | 3,480 | 299 | 471 | 326 | 231 | 220 | 229 |
| 15 | 295 | 324 | 200 | 230 | 270 | 3,420 | 336 | 426 | 318 | 230 | 217 | 229 |
| 16 | 291 | 317 | 200 | 240 | 260 | 2,630 | 572 | 395 | 326 | 228 | 234 | 230 |
| 17 | 287 | 315 | 200 | 250 | 260 | 1,610 | 663 | 378 | 336 | 229 | 246 | 233 |
| 18 | 279 | 312 | 210 | 260 | 250 | 1,150 | 491 | 359 | 334 | 227 | 262 | 232 |
| 19 | 273 | 305 | 210 | 270 | 250 | 917 | 425 | 352 | 329 | 224 | 230 | 231 |
| 20 | 271 | 306 | 220 | 280 | 250 | 790 | 413 | 341 | 313 | 227 | 222 | 230 |
| 21 | 299 | 303 | 220 | 280 | 250 | 708 | 423 | 347 | 301 | 218 | 216 | 230 |
| 22 | 324 | 297 | 230 | 280 | 250 | 639 | 484 | 585 | 294 | 212 | 228 | 266 |
| 23 | 351 | 281 | 240 | 280 | 260 | 589 | 383 | 646 | 295 | 218 | 346 | 245 |
| 24 | 377 | 291 | 240 | 280 | 260 | 563 | 367 | 592 | 285 | 266 | 383 | 230 |
| 25 | 329 | 292 | 250 | 290 | 260 | 547 | 361 | 993 | 281 | 233 | 267 | 264 |
| 26 | 315 | 292 | 260 | 290 | 250 | 532 | 348 | 1,370 | 291 | 242 | 257 | 351 |
| 27 | 311 | 288 | 270 | 300 | 250 | 495 | 340 | 1,010 | 277 | 231 | 250 | 494 |
| 28 | 302 | 277 | 280 | 300 | 250 | 467 | 335 | 712 | 269 | 227 | 242 | 350 |
| 29 | 291 | 270 | 280 | 280 | ------ | 440 | 330 | 585 | 261 | 228 | 233 | 308 |
| 30 | 286 | 260 | 280 | 260 | ------ | 421 | 327 | 519 | 268 | 279 | 235 | 275 |
| 31 | 301 | ------ | 280 | 250 | ------ | 485 | ------ | 478 | ------ | 238 | 383 | ------ |
| TOTAL | 10,496 | 10,778 | 7,110 | 7,930 | 7,115 | 31,593 | 11,453 | 19,298 | 10,134 | 7,365 | 7,416 | 8,887 |
| MEAN | 326 | 359 | 229 | 256 | 254 | 1,019 | 382 | 623 | 338 | 238 | 239 | 267 |
| MAX | 471 | 746 | 280 | 300 | 272 | 3,610 | 663 | 1,370 | 443 | 279 | 348 | 494 |
| MIN | 271 | 260 | 190 | 220 | 235 | 260 | 299 | 341 | 268 | 212 | 286 | 229 |
| CFSM | .77 | .84 | .54 | .60 | .60 | 2.39 | .90 | 1.46 | .79 | .56 | .56 | .63 |
| IN. | .88 | .94 | .62 | .69 | .62 | 2.76 | 1.00 | 1.69 | .88 | .64 | .65 | .78 |

CAL YR 1972 TOTAL 110,275 MEAN 323 MAX 1,640 MIN 190 CFSM .76 IN 10.33
WTR YR 1973 TOTAL 130,293 MEAN 379 MAX 3,610 MIN 190 CFSM .89 IN 12.00

PEAK DISCHARGE (BASE, 1,000 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 3-13 | 0700 | 10.06 | 3,790 | 5-26 | 1000 | 6.37 | 1,420 |
| 5- 2 | 1000 | 5.68 | 1,180 | | | | |

## 05369000 Red Cedar River at Menomonie, Wis.

LOCATION.--Lat 44°53'02", long 91°55'57", in NW¼ sec.26, T.28 N., R.13 W., Dunn County, on right bank at Menomonie, 900 ft (274 m) downstream from powerplant of Northern States Power Co., and 1,000 ft (305 m) downstream from Wilson Creek.

DRAINAGE AREA.--1,760 mi² (4,560 km²), approximately.

PERIOD OF RECORD.--June 1907 to September 1908, May 1913 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 780 ft (237.7 m) above mean sea level (Northern States Power Co. bench mark). Prior to Sept. 3, 1908, nonrecording gage at site 1 mi (1.6 km) downstream at different datum. May 9, 1913, to Sept. 30, 1923, water-stage recorder at same site at datum 0.42 ft (0.128 m) lower than present datum.

AVERAGE DISCHARGE.--61 years, 1,235 ft³/s (34.98 m³/s).

EXTREMES.--Current year: Maximum discharge, 11,600 ft³/s (328 m³/s) Mar. 13, gage height, 6.69 ft (2.039 m); minimum, 250 ft³/s (7.08 m³/s) Nov. 20, gage height, 1.13 ft (0.344 m); minimum daily, 746 ft³/s (21.1 m³/s) June 14.

Period of record: Maximum discharge, 40,000 ft³/s (1,133 m³/s) Apr. 4, 1934, gage height, 16.0 ft (4.88 m), from floodmarks, from rating curve extended above 27,000 ft³/s (765 m³/s) on basis of computed flow over Cedar Falls Dam 6 mi (10 km) upstream; minimum, 21 ft³/s (0.59 m³/s) Dec. 9, 1938, gage height, 0.65 ft (0.198 m).

REMARKS.--Records good. Flow regulated by powerplants at Menomonie and Cedar Falls.

REVISIONS.--WSP 805: Drainage area.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).

| Oct. 1 to Aug. 12 | | | | Aug. 13 to Sept. 30 | |
|---|---|---|---|---|---|
| 1.8 | 780 | 4.0 | 4,440 | 2.0 | 940 |
| 2.0 | 965 | 5.0 | 6,580 | 3.0 | 2,390 |
| 2.5 | 1,730 | 7.0 | 12,600 | 4.0 | 3,990 |
| 3.0 | 2,620 | | | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,490 | 1,700 | 1,260 | 1,380 | 1,390 | 1,300 | 1,680 | 3,690 | 2,440 | 1,280 | 1,210 | 1,340 |
| 2 | 1,640 | 2,390 | 1,240 | 1,420 | 1,300 | 1,280 | 1,990 | 3,480 | 2,250 | 1,380 | 1,180 | 1,210 |
| 3 | 1,640 | 2,430 | 766 | 1,590 | 1,330 | 1,480 | 2,110 | 3,650 | 2,260 | 1,360 | 1,190 | 1,600 |
| 4 | 2,080 | 2,530 | 869 | 1,380 | 1,300 | 1,460 | 2,230 | 2,790 | 2,510 | 1,190 | 1,040 | 1,540 |
| 5 | 2,140 | 2,310 | 939 | 1,170 | 1,360 | 1,760 | 1,920 | 2,980 | 3,620 | 1,130 | 830 | 1,430 |
| 6 | 2,050 | 2,150 | 1,040 | 1,230 | 1,290 | 2,020 | 1,830 | 3,080 | 2,630 | 1,240 | 1,230 | 1,630 |
| 7 | 2,400 | 2,200 | 1,150 | 1,220 | 1,240 | 2,090 | 1,820 | 2,930 | 2,560 | 1,210 | 1,300 | 1,270 |
| 8 | 1,590 | 2,490 | 1,190 | 1,140 | 1,170 | 3,160 | 1,760 | 2,770 | 2,280 | 1,190 | 1,170 | 1,230 |
| 9 | 1,670 | 2,570 | 1,250 | 1,130 | 1,050 | 3,780 | 1,770 | 2,600 | 2,440 | 1,170 | 1,360 | 1,110 |
| 10 | 1,730 | 2,280 | 1,280 | 1,230 | 1,160 | 3,750 | 1,660 | 3,280 | 2,180 | 1,260 | 1,590 | 1,210 |
| 11 | 1,680 | 1,810 | 1,290 | 1,180 | 1,160 | 5,080 | 1,750 | 3,440 | 2,910 | 1,090 | 1,090 | 1,180 |
| 12 | 1,800 | 2,050 | 1,320 | 1,040 | 1,280 | 7,870 | 1,810 | 2,570 | 2,780 | 1,270 | 1,070 | 1,080 |
| 13 | 2,100 | 1,590 | 1,340 | 1,080 | 1,260 | 9,920 | 1,620 | 2,550 | 1,810 | 1,030 | 1,130 | 1,130 |
| 14 | 1,790 | 1,810 | 1,230 | 1,130 | 1,360 | 10,800 | 1,680 | 2,550 | 746 | 1,160 | 1,020 | 1,050 |
| 15 | 1,750 | 1,730 | 1,270 | 1,080 | 1,140 | 9,810 | 2,130 | 2,580 | 1,240 | 1,070 | 1,080 | 1,170 |
| 16 | 1,730 | 1,770 | 1,330 | 1,310 | 1,130 | 9,180 | 3,060 | 2,320 | 1,910 | 1,120 | 1,060 | 1,040 |
| 17 | 1,570 | 1,570 | 1,220 | 1,240 | 1,040 | 7,690 | 3,070 | 1,940 | 1,510 | 1,070 | 1,250 | 973 |
| 18 | 1,580 | 1,670 | 1,050 | 1,020 | 1,210 | 6,210 | 2,460 | 2,250 | 1,820 | 1,150 | 1,320 | 1,060 |
| 19 | 1,490 | 1,670 | 1,450 | 1,050 | 1,280 | 5,250 | 2,460 | 1,970 | 1,560 | 921 | 1,160 | 1,040 |
| 20 | 1,340 | 1,620 | 1,410 | 1,340 | 1,280 | 4,510 | 2,170 | 1,940 | 1,540 | 1,040 | 1,050 | 1,090 |
| 21 | 1,700 | 1,540 | 1,450 | 1,390 | 1,240 | 3,790 | 2,050 | 1,940 | 1,380 | 919 | 952 | 1,060 |
| 22 | 1,740 | 1,660 | 1,410 | 1,600 | 1,130 | 3,320 | 1,550 | 2,680 | 1,690 | 982 | 1,380 | 1,180 |
| 23 | 1,790 | 1,190 | 1,410 | 1,460 | 1,290 | 3,330 | 1,770 | 3,130 | 1,390 | 1,020 | 1,300 | 1,080 |
| 24 | 1,680 | 1,480 | 1,340 | 1,430 | 1,260 | 3,290 | 1,750 | 2,680 | 1,410 | 1,500 | 1,510 | 1,180 |
| 25 | 1,730 | 1,910 | 1,420 | 1,550 | 1,230 | 2,960 | 1,980 | 3,690 | 1,240 | 1,230 | 1,250 | 1,370 |
| 26 | 1,740 | 1,466 | 1,210 | 1,370 | 1,220 | 2,850 | 1,650 | 3,880 | 1,430 | 1,440 | 1,310 | 2,050 |
| 27 | 1,540 | 1,740 | 1,450 | 1,370 | 1,230 | 2,740 | 1,680 | 4,260 | 1,350 | 1,200 | 1,220 | 2,590 |
| 28 | 1,790 | 1,450 | 1,290 | 1,310 | 1,370 | 2,630 | 1,750 | 4,170 | 1,290 | 1,250 | 1,140 | 2,090 |
| 29 | 1,550 | 1,330 | 1,660 | 1,160 | ------ | 2,140 | 1,100 | 3,660 | 1,390 | 1,260 | 1,170 | 1,780 |
| 30 | 1,580 | 1,480 | 1,570 | 1,360 | ------ | 1,390 | 2,090 | 2,950 | 1,300 | 1,560 | 1,090 | 1,420 |
| 31 | 1,730 | ------ | 1,580 | 1,280 | ------ | 1,570 | ------ | 2,480 | ------ | 1,360 | 1,280 | ------ |
| TOTAL | 53,910 | 55,620 | 39,634 | 40,040 | 34,620 | 128,410 | 58,270 | 90,380 | 56,886 | 36,812 | 36,932 | 39,943 |
| MEAN | 1,739 | 1,854 | 1,279 | 1,317 | 1,236 | 4,142 | 1,942 | 2,915 | 1,894 | 1,187 | 1,191 | 1,331 |
| MAX | 2,400 | 2,570 | 1,660 | 1,820 | 1,390 | 10,800 | 3,070 | 4,260 | 3,620 | 1,560 | 1,590 | 2,590 |
| MIN | 1,360 | 1,190 | 766 | 1,040 | 1,040 | 1,280 | 1,100 | 1,940 | 746 | 982 | 830 | 973 |

CAL YR 1972 TOTAL 582,184 MEAN 1,590 MAX 6,480 MIN 577
WTR YR 1973 TOTAL 672,177 MEAN 1,842 MAX 10,800 MIN 746

## 05369500 Chippewa River at Durand, Wis.

LOCATION.--Lat 44°37'40", long 91°58'10", in SW¼ sec.21, T.25 N., R.13 W., Pepin County, on left bank in Durand, 75 ft (23 m) downstream from bridge on U.S. Highway 10, and 9.5 mi (15.3 km) downstream from Red Cedar River.

DRAINAGE AREA.--9,010 mi² (23,340 km²), approximately.

PERIOD OF RECORD.--July 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 694.59 ft (211.711 m) above mean sea level. Prior to Dec. 9, 1930, nonrecording gage at bridge 400 ft (122 m) downstream at same datum.

AVERAGE DISCHARGE.--45 years, 7,496 ft³/s (212.3 m³/s).

EXTREMES.--Current year: Maximum discharge, 73,300 ft³/s (2,076 m³/s) Mar. 16, gage height, 14.26 ft (4.346 m); minimum daily, 2,960 ft³/s (83.8 m³/s) July 23.

Period of record: Maximum discharge, 123,000 ft³/s (3,483 m³/s) Apr. 2, 1967, gage height, 16.93 ft (5.160 m); minimum observed, 1,020 ft³/s (28.9 m³/s) Nov. 24, 1950, gage height, 0.12 ft (0.037 m).

Maximum stage known, 18.4 ft (5.61 m) Sept. 12, 1884.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplants, Moose Lake, Lake Chippewa, Rest Lake, Flambeau Flowage, and Lake Wissota on Chippewa and Flambeau Rivers (see p. 98).

REVISIONS (WATER YEARS).--WSP 785: 1930, 1934(M). WSP 875: 1930 (monthly and yearly runoff). WSP 925: 1938. WSP 1508: 1929(M), 1932.

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used July 6-10; stage-discharge relation affected by ice Nov. 22 to Mar. 12.)

| Oct. 1 to Mar. 9 | | Mar. 10 to Sept. 30 | | | |
|---|---|---|---|---|---|
| 2.0 | 4,790 | 0.5 | 2,780 | 5.0 | 13,600 |
| 3.0 | 7,070 | 1.0 | 3,480 | 8.0 | 25,000 |
| 5.0 | 12,700 | 2.0 | 5,350 | 11.0 | 40,700 |
| 8.0 | 25,700 | 3.0 | 7,820 | 15.0 | 85,500 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 19,500 | 9,730 | 6,400 | 7,400 | 7,200 | 7,400 | 13,200 | 13,700 | 17,000 | 6,340 | 5,270 | 5,670 |
| 2 | 15,600 | 10,400 | 6,600 | 7,400 | 7,000 | 8,400 | 12,200 | 26,700 | 14,500 | 4,810 | 4,510 | 5,770 |
| 3 | 13,500 | 11,900 | 6,000 | 7,600 | 7,400 | 7,800 | 12,600 | 39,700 | 13,200 | 6,670 | 5,220 | 6,070 |
| 4 | 13,200 | 19,100 | 5,000 | 8,200 | 6,800 | 8,000 | 12,200 | 53,100 | 12,800 | 7,030 | 5,310 | 6,080 |
| 5 | 17,400 | 22,900 | 5,200 | 9,400 | 7,000 | 7,000 | 12,000 | 53,500 | 15,100 | 4,230 | 4,830 | 6,080 |
| 6 | 20,400 | 21,500 | 6,000 | 8,600 | 7,400 | 8,000 | 11,700 | 37,500 | 17,700 | 5,700 | 3,430 | 6,100 |
| 7 | 19,400 | 17,400 | 5,900 | 8,000 | 7,000 | 9,200 | 10,500 | 28,200 | 23,800 | 5,900 | 4,360 | 6,100 |
| 8 | 18,200 | 19,400 | 6,200 | 8,000 | 6,800 | 11,000 | 11,100 | 24,700 | 18,600 | 3,830 | 5,120 | 5,950 |
| 9 | 16,800 | 23,200 | 6,600 | 7,800 | 6,800 | 14,000 | 10,000 | 23,900 | 15,500 | 3,820 | 5,310 | 5,750 |
| 10 | 14,000 | 22,900 | 5,400 | 7,600 | 6,400 | 16,000 | 10,500 | 26,500 | 14,100 | 5,080 | 5,670 | 5,320 |
| 11 | 13,400 | 19,800 | 4,900 | 8,000 | 6,800 | 17,000 | 10,600 | 29,400 | 12,200 | 4,730 | 5,750 | 5,270 |
| 12 | 12,900 | 18,200 | 5,800 | 8,600 | 6,000 | 25,000 | 9,860 | 28,800 | 12,900 | 4,850 | 5,730 | 5,560 |
| 13 | 12,600 | 17,200 | 7,000 | 7,600 | 6,600 | 45,500 | 9,140 | 27,500 | 12,300 | 4,670 | 5,6[illegible]0 | 5,200 |
| 14 | 11,300 | 15,300 | 7,200 | 7,600 | 7,800 | 66,600 | 9,260 | 22,600 | 10,200 | 4,390 | 5,250 | 5,230 |
| 15 | 11,200 | 13,100 | 6,000 | 7,600 | 8,400 | 69,100 | 10,800 | 20,600 | 8,790 | 3,790 | 5,260 | 5,140 |
| 16 | 10,500 | 12,200 | 6,800 | 7,800 | 8,000 | 71,900 | 15,700 | 17,600 | 9,130 | 3,500 | 5,410 | 3,630 |
| 17 | 9,830 | 11,000 | 7,000 | 6,800 | 7,600 | 70,400 | 25,300 | 14,500 | 9,300 | 4,240 | 5,500 | 3,380 |
| 18 | 9,710 | 10,400 | 7,000 | 7,400 | 7,200 | 59,900 | 32,100 | 14,400 | 6,710 | 3,950 | 5,830 | 3,910 |
| 19 | 8,320 | 9,590 | 6,600 | 8,600 | 6,000 | 44,800 | 34,000 | 13,900 | 9,720 | 4,290 | 5,720 | 4,190 |
| 20 | 7,490 | 9,540 | 6,800 | 7,600 | 7,000 | 30,200 | 24,800 | 13,100 | 10,500 | 4,120 | 5,320 | 4,000 |
| 21 | 8,630 | 9,130 | 7,000 | 8,400 | 7,600 | 23,100 | 21,500 | 11,700 | 8,570 | 3,990 | 5,330 | 4,170 |
| 22 | 8,610 | 8,400 | 7,400 | 9,200 | 7,600 | 20,800 | 18,600 | 12,500 | 6,930 | 3,380 | 5,320 | 4,870 |
| 23 | 8,190 | 8,000 | 7,200 | 9,400 | 7,200 | 17,900 | 13,900 | 13,800 | 7,100 | 2,960 | 5,970 | 3,750 |
| 24 | 10,400 | 7,800 | 7,000 | 9,600 | 7,600 | 16,400 | 14,200 | 13,300 | 7,170 | 4,540 | 5,940 | 3,330 |
| 25 | 12,700 | 7,400 | 6,800 | 8,800 | 7,000 | 15,600 | 13,300 | 14,700 | 5,840 | 5,190 | 5,710 | 4,540 |
| 26 | 13,600 | 7,200 | 6,800 | 8,600 | 5,800 | 15,900 | 12,100 | 21,900 | 7,070 | 5,140 | 4,900 | 6,130 |
| 27 | 12,300 | 7,200 | 7,000 | 9,000 | 6,000 | 15,400 | 10,100 | 32,100 | 5,970 | 5,140 | 4,660 | 9,390 |
| 28 | 11,100 | 7,000 | 7,000 | 8,000 | 7,200 | 14,900 | 10,400 | 35,300 | 7,090 | 5,260 | 4,960 | 11,200 |
| 29 | 10,400 | 6,800 | 7,000 | 7,400 | ------ | 14,500 | 10,300 | 29,400 | 6,120 | 4,540 | 5,330 | 11,000 |
| 30 | 9,940 | 6,800 | 7,000 | 7,600 | ------ | 13,500 | 9,190 | 22,700 | 5,810 | 4,900 | 5,230 | 10,500 |
| 31 | 9,310 | ------ | 7,400 | 7,800 | ------ | 13,400 | ------ | 20,900 | ------ | 5,200 | 4,930 | ------ |
| TOTAL | 389,430 | 390,490 | 203,100 | 251,400 | 196,400 | 778,600 | 431,150 | 758,200 | 331,720 | 146,260 | 162,700 | 173,280 |
| MEAN | 12,560 | 13,020 | 6,552 | 8,110 | 7,014 | 25,120 | 14,370 | 24,460 | 11,060 | 4,718 | 5,248 | 5,776 |
| MAX | 20,400 | 23,200 | 7,800 | 9,600 | 8,400 | 71,900 | 34,000 | 53,500 | 23,800 | 7,030 | 5,970 | 11,200 |
| MIN | 7,490 | 6,800 | 4,900 | 6,800 | 5,800 | 7,000 | 9,140 | 11,700 | 5,810 | 2,960 | 3,430 | 3,330 |

CAL YR 1972 TOTAL 3,585,970 MEAN 9,798 MAX 41,700 MIN 2,790
WTR YR 1973 TOTAL 4,212,730 MEAN 11,540 MAX 71,900 MIN 2,960

## 05370000 Eau Galle River at Spring Valley, Wis.

LOCATION.--Lat 44°51'10", long 92°14'17", in SE¼ NE¼ sec.6, T.27 N., R.15 W., Pierce County, on right bank, at Spring Valley, 1,500 ft (460 m) upstream from Mines Creek.

DRAINAGE AREA.--64.8 mi² (167.8 km²).

PERIOD OF RECORD.--March 1944 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is mean sea level (levels by Corps of Engineers). Prior to July 31, 1957, nonrecording gage at site 850 ft (260 m) downstream at datum of 912.45 ft (278.115 m) above mean sea level. Aug. 1, 1957, to June 6, 1966, nonrecording gage at downstream site at datum of 910.45 ft (277.505 m) above mean sea level. June 7, 1966, to Oct. 31, 1968, nonrecording gage at downstream site at datum of 909.45 ft (277.200 m) above mean sea level.

AVERAGE DISCHARGE.--5 years (1969-73) 29.3 ft³/s (0.830 m³/s), 6.14 in/yr (156 mm/yr) since operation of flood-control reservoir.

EXTREMES.--Current year: Maximum discharge, 1,790 ft³/s (50.7 m³/s) Mar. 11, gage height, 917.48 ft (279.648 m); minimum, 2.0 ft³/s (0.057 m³/s) Dec. 26, 27, gage height, 912.42 ft (278.106 m).

Period of record: Maximum discharge, 7,000 ft³/s (198 m³/s) Apr. 15, 1954, gage height, 12.50 ft (3.810 m), datum then in use; no flow Aug. 11-15, 1971, flow shut off at flood-control dam upstream; minimum observed prior to dam construction period, 5.8 ft³/s (0.16 m³/s) Sept. 25, 27, 28, 30, 1949.

Maximum stage known since at least 1894, 19.98 ft (6.090 m) Sept. 18, 1942, with datum at 909.45 ft (277.200 m) above mean sea level, from floodmarks, discharge, 33,000 ft³/s (930 m³/s) estimated by Corps of Engineers on basis of slope-area measurement by Geological Survey of peak discharge of 39,000 ft³/s (1,100 m³/s) at Elmwood, drainage area, 91.9 mi² (238.0 km²).

REMARKS.--Records good. Flow slightly regulated by flood-control dam 770 ft (235 m) upstream.

REVISIONS (WATER YEARS).--WRD Wis. 1967: 1966.

Rating table (gage height, in feet, and discharge, in cubic feet per second).

| | | | |
|---|---|---|---|
| 12.9 | 5.8 | 14.6 | 131 |
| 13.4 | 12 | 15.0 | 251 |
| 13.7 | 21 | 15.5 | 472 |
| 14.0 | 41 | 16.0 | 760 |
| 14.3 | 77 | 17.0 | 1,410 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 22 | 16 | 15 | 14 | 14 | 13 | 23 | 464 | 32 | 29 | 16 | 8.0 |
| 2 | 18 | 121 | 15 | 23 | 15 | 13 | 23 | 376 | 30 | 37 | 16 | 9.0 |
| 3 | 23 | 168 | 14 | 22 | 14 | 13 | 22 | 222 | 31 | 30 | 16 | 9.0 |
| 4 | 24 | 63 | 14 | 16 | 14 | 14 | 22 | 91 | 31 | 26 | 16 | 9.0 |
| 5 | 24 | 38 | 14 | 12 | 14 | 14 | 22 | 57 | 34 | 24 | 16 | 13 |
| 6 | 24 | 29 | 14 | 25 | 13 | 15 | 23 | 44 | 30 | 24 | 20 | 12 |
| 7 | 20 | 25 | 14 | 13 | 13 | 49 | 22 | 41 | 28 | 23 | 21 | 14 |
| 8 | 18 | 26 | 14 | 8.6 | 13 | 218 | 21 | 104 | 29 | 21 | 19 | 14 |
| 9 | 15 | 26 | 14 | 7.6 | 13 | 182 | 23 | 103 | 28 | 19 | 19 | 13 |
| 10 | 15 | 24 | 13 | 7.7 | 13 | 114 | 22 | 179 | 26 | 19 | 16 | 13 |
| 11 | 15 | 22 | 13 | 7.7 | 13 | 1,020 | 22 | 190 | 27 | 18 | 15 | 24 |
| 12 | 15 | 22 | 14 | 7.7 | 13 | 566 | 23 | 110 | 29 | 18 | 15 | 38 |
| 13 | 15 | 19 | 15 | 7.8 | 13 | 576 | 27 | 75 | 28 | 18 | 15 | 24 |
| 14 | 14 | 17 | 14 | 7.8 | 14 | 676 | 29 | 53 | 27 | 17 | 16 | 18 |
| 15 | 13 | 16 | 21 | 9.4 | 13 | 320 | 43 | 42 | 26 | 17 | 15 | 10 |
| 16 | 15 | 16 | 27 | 15 | 12 | 126 | 272 | 37 | 28 | 17 | 36 | 9.0 |
| 17 | 13 | 16 | 27 | 14 | 13 | 63 | 110 | 33 | 28 | 17 | 42 | 9.0 |
| 18 | 13 | 15 | 23 | 16 | 13 | 59 | 57 | 32 | 29 | 16 | 27 | 10 |
| 19 | 13 | 15 | 27 | 20 | 13 | 44 | 48 | 31 | 29 | 19 | 22 | 10 |
| 20 | 14 | 15 | 27 | 19 | 13 | 36 | 33 | 31 | 28 | 17 | 18 | 9.0 |
| 21 | 16 | 19 | 16 | 19 | 12 | 32 | 29 | 31 | 29 | 16 | 16 | 8.0 |
| 22 | 15 | 15 | 7.3 | 24 | 13 | 30 | 28 | 32 | 29 | 16 | 35 | 8.0 |
| 23 | 31 | 15 | 7.3 | 20 | 13 | 29 | 27 | 31 | 31 | 16 | 81 | 10 |
| 24 | 47 | 15 | 7.2 | 17 | 13 | 28 | 25 | 32 | 29 | 28 | 35 | 10 |
| 25 | 32 | 15 | 7.3 | 15 | 13 | 27 | 24 | 102 | 31 | 23 | 27 | 10 |
| 26 | 25 | 15 | 5.9 | 15 | 13 | 27 | 23 | 123 | 32 | 20 | 24 | 24 |
| 27 | 20 | 15 | 5.9 | 14 | 12 | 26 | 23 | 76 | 32 | 22 | 19 | 27 |
| 28 | 16 | 14 | 7.2 | 14 | 13 | 25 | 22 | 49 | 30 | 19 | 35 | 23 |
| 29 | 18 | 14 | 7.6 | 14 | ------ | 24 | 22 | 39 | 28 | 19 | 61 | 20 |
| 30 | 15 | 14 | 18 | 14 | ------ | 23 | 24 | 68 | 29 | 22 | 23 | 17 |
| 31 | 17 | ------ | 17 | 14 | ------ | 23 | ------ | 45 | ------ | 18 | 8.0 | ------ |
| TOTAL | 592 | 860 | 455.7 | 453.3 | 368 | 4,443 | 1,126 | 2,943 | 878 | 645 | 759.0 | 424.0 |
| MEAN | 19.1 | 28.7 | 14.7 | 14.6 | 13.1 | 143 | 37.5 | 94.9 | 29.3 | 20.8 | 24.5 | 14.1 |
| MAX | 47 | 168 | 27 | 25 | 15 | 1,020 | 272 | 464 | 34 | 37 | 81 | 38 |
| MIN | 13 | 14 | 5.9 | 7.6 | 12 | 13 | 21 | 31 | 26 | 16 | 8.0 | 8.0 |
| CFSM | .29 | .44 | .23 | .23 | .20 | 2.21 | .58 | 1.46 | .45 | .32 | .38 | .22 |
| IN. | .34 | .49 | .26 | .26 | .21 | 2.55 | .65 | 1.69 | .50 | .37 | .44 | .24 |

CAL YR 1972 TOTAL 8,925.5 MEAN 24.4 MAX 634 MIN 5.9 CFSM .38 IN 5.12
WTR YR 1973 TOTAL 13,947.0 MEAN 38.2 MAX 1,020 MIN 5.9 CFSM .59 IN 8.01

## Reservoirs in Chippewa River Basin

The five reservoirs listed below are used to stabilize the flow of the Chippewa and Flambeau Rivers for power utilization, and are also used for recreational purposes. The first four are operated by Chippewa-Flambeau Improvement Co. The remaining one is operated by the Northern States Power Co., which also furnishes the gage heights and capacity tables for all the reservoirs. Month-end contents are computed by the Geological Survey. The usable capacity of these reservoirs is usually less in summer than in winter, because the allowable summer drawdown is limited by the Department of Natural Resources in the interest of riparian property owners. There are occasionally formal or informal changes in capacity and in minimum drawdown levels. Usable capacity figures listed below are for winter regulation.

05355400 Moose Lake on West Fork Chippewa River, lat 46°02'00", long 91°04'32", in NE¼ sec.14, T.41 N., R.6 W., Sawyer County, 15.0 mi (24.1 km) north of Winter, Wis., completed in 1893, has a usable capacity of 400,000,000 ft³ ((11,000,000 m³). Drainage area, 225 mi² (583 km²). Datum of gage is at mean sea level (Northern States Power Co. bench mark).

05355600 Lake Chippewa on Chippewa River, lat 45°53'20", long 91°04'40", in SE¼ sec.2, T.39 N., R.6 W., Sawyer County, 3.2 mi (5.2 km) upstream from Geological Survey river-gaging station, 5.5 mi (8.8 km) northwest of Winter, Wis., completed in 1923, has a usable capacity of 10,000,000,000 ft³ (283,000,000 m³). Drainage area, 775 mi² (2,007 km²). Datum of gage is at mean sea level (Northern States Power Co. bench mark).

05357300 Rest Lake on Manitowish River, lat 46°08'20", long 89°53'05", in NW¼ sec.9, T.42 N., R.5 E., Vilas County, 6.2 mi (10 km) east of Manitowish, Wis., used as a reservoir since 1887, has a capacity of 660,000,000 ft³ (19,000,000 m³) between gage heights 105.00 ft (32.00 m) and 108.50 ft (33.07 m). This reservoir includes nine lakes controlled by the same dam. Drainage area, 243 mi² (629 km²). Altitude of gage is 1,600 ft (488 m), by U.S. Geological Survey topographic map.

05357400 Flambeau Flowage on North Fork Flambeau River, lat 46°04'13", long 90°13'23", in SE¼ sec.34, T.42 N., R.2 E., Iron County, 0.5 mi (0.8 km) upstream from discontinued Geological Survey river-gaging station, 10.2 mi (16.4 km) southwest of Mercer, Wis., completed in 1926, has a usable capacity of 5,895,000,000 ft³ (167,000,000 m³). Drainage area, 666 mi² (1,725 km²). Datum of gage is at mean sea level (Northern States Power Co. bench mark).

05364200 Lake Wissota on Chippewa River, lat 44°56'18", long 91°20'27", in NW¼ sec.3, T.28 N., R.8 W., Chippewa County, 2.0 mi (3.2 km) east of Chippewa Falls, Wis., city limits, completed in 1917, has a usable capacity of 3,547,000,000 ft³ (100,500,000 m³). Drainage area, 5,548 mi² (14,369 km²). Datum of gage is at mean sea level (Northern States Power Co. bench mark).

Month-end contents, in millions of cubic feet, water year October 1972 to September 1973

| | Moose Lake | Lake Chippewa | Rest Lake | Flambeau Flowage | Lake Wissota |
|---|---|---|---|---|---|
| Sept. 30..... | 393 | 9,280 | 973 | 5,634 | 3,978 |
| Oct. 31..... | 198 | 9,424 | 463 | 5,752 | 3,906 |
| Nov. 30..... | 35 | 8,838 | 350 | 5,678 | 3,884 |
| Dec. 31..... | 25 | 6,460 | 350 | 4,728 | 3,911 |
| Jan. 31..... | 30 | 4,212 | 350 | 3,743 | 3,898 |
| Feb. 28..... | 15 | 2,846 | 350 | 2,808 | 2,435 |
| Mar. 31..... | 190 | 6,890 | 520 | 5,052 | 3,940 |
| Apr. 30..... | 393 | 9,892 | 733 | 5,826 | 3,857 |
| May 31..... | 400 | 9,892 | 991 | 5,752 | 4,024 |
| June 30..... | 393 | 9,856 | 973 | 5,308 | 3,857 |
| July 31..... | 386 | 9,640 | 973 | 4,226 | 3,943 |
| Aug. 31..... | 393 | 8,974 | 1,105 | 3,714 | 3,868 |
| Sept. 30..... | 407 | 9,076 | 973 | 3,772 | 3,967 |

## 05378500 Mississippi River at Winona, Minn.

LOCATION.--Lat 44°03'20", long 91°38'15", in sec.23, T.107 N., R.7 W., Winona County, on right bank at Winona pumping station in Winona, 9.5 mi (15.3 km) upstream from Trempealeau River and at mile 725.7 (1,167.7 km) upstream from the Ohio River.

DRAINAGE AREA.--59,200 mi² (153,300 km²), approximately.

PERIOD OF RECORD.--June 1928 to current year. Gage-height records collected in this vicinity since 1878 are contained in reports of Mississippi River Commission.

GAGE.--Water-stage recorder. Datum of gage is 639.64 ft (194.96 m) above mean sea level, datum of 1929. June 10, 1928, to Apr. 15, 1931, nonrecording gage at site 800 ft (244 m) upstream. Prior to Oct. 1, 1929, at datum 0.20 ft (0.06 m) higher and Oct. 1, 1929, to Apr. 15, 1931, at datum 0.12 ft (0.04 m) lower. Apr. 16, 1931, to Nov. 12, 1934, nonrecording gage at present site and datum. Since Mar. 31, 1937, auxiliary water-stage recorder 2.7 mi (4.3 km) upstream at tailwater of navigation dam 5A.

AVERAGE DISCHARGE.--45 years, 25,980 ft³/s (1,019 m³/s), 5.96 in/yr (151 mm/yr).

EXTREMES.--Current year: Maximum discharge, 136,000 ft³/s (3,850 m³/s) Mar. 20 (gage height, 14.58 ft or 4.444 m); minimum, 9,390 ft³/s (266 m³/s) Sept. 22, result of regulation; minimum gage height, 4.81 ft (1,466 m) Aug. 28.

Period of record: Maximum discharge, 268,000 ft³/s (7,590 m³/s) Apr. 19, 1965 (gage height, 20.77 ft or 6.331 m, from floodmark); minimum, 2,250 ft³/s (63.7 m³/s) Dec. 29, 1933 (gage height, -1.18 ft or -0.360 m); minimum gage height, -3.38 ft (1.030 m) Aug. 31, 1934.

Flood of June 18, 1880, reached an elevation of 657.14 ft, according to Corps of Engineers (discharge not determined).

REMARKS.--Records good. Records of chemical analyses for the current year are published in Part 2 of this report. Some regulation by reservoirs, navigation dams, and powerplants at low and medium stages. Flood flow not materially affected by artificial storage.

REVISIONS.--WSP 700: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 47,000 | 31,100 | 24,300 | 22,900 | 22,400 | 17,700 | 71,400 | 50,100 | 63,700 | 21,300 | 16,200 | 20,600 |
| 2 | 46,000 | 32,800 | 22,000 | 22,800 | 22,500 | 19,300 | 69,000 | 55,000 | 62,000 | 21,000 | 16,400 | 20,400 |
| 3 | 43,900 | 34,200 | 18,900 | 22,700 | 22,600 | 22,300 | 67,000 | 63,100 | 60,100 | 21,400 | 16,700 | 20,500 |
| 4 | 42,800 | 36,500 | 13,700 | 22,600 | 22,600 | 26,500 | 65,100 | 72,100 | 58,500 | 21,700 | 16,900 | 21,100 |
| 5 | 39,200 | 41,100 | 12,300 | 21,700 | 22,600 | 27,900 | 63,800 | 76,900 | 57,300 | 22,100 | 19,100 | 24,400 |
| 6 | 39,600 | 43,400 | 12,600 | 21,700 | 21,500 | 31,400 | 61,800 | 84,400 | 55,800 | 21,700 | 22,200 | 25,100 |
| 7 | 40,700 | 50,100 | 13,000 | 21,700 | 21,500 | 36,100 | 60,000 | 87,600 | 54,800 | 21,500 | 20,100 | 23,100 |
| 8 | 42,800 | 51,900 | 13,000 | 20,900 | 21,300 | 42,000 | 58,000 | 82,200 | 54,900 | 20,900 | 15,100 | 22,000 |
| 9 | 42,000 | 54,000 | 13,000 | 20,600 | 19,800 | 45,300 | 57,100 | 75,100 | 55,600 | 20,200 | 16,200 | 21,500 |
| 10 | 39,600 | 55,200 | 17,000 | 20,600 | 19,500 | 47,300 | 56,300 | 71,300 | 54,800 | 18,700 | 16,800 | 22,400 |
| 11 | 36,000 | 57,000 | 17,000 | 20,700 | 19,500 | 54,300 | 53,100 | 69,600 | 51,700 | 17,300 | 20,000 | 21,900 |
| 12 | 38,100 | 57,300 | 17,900 | 20,500 | 19,000 | 65,300 | 51,000 | 69,300 | 49,300 | 16,000 | 21,700 | 19,900 |
| 13 | 38,600 | 55,600 | 19,000 | 20,500 | 19,000 | 78,400 | 49,900 | 69,200 | 47,000 | 14,800 | 23,900 | 18,900 |
| 14 | 37,700 | 54,100 | 19,400 | 20,500 | 19,200 | 82,500 | 45,400 | 69,100 | 43,400 | 13,900 | 26,400 | 16,300 |
| 15 | 32,800 | 52,500 | 19,600 | 20,500 | 20,200 | 93,100 | 46,100 | 68,000 | 41,000 | 14,700 | 24,000 | 14,100 |
| 16 | 31,400 | 50,800 | 20,100 | 20,600 | 20,500 | 109,000 | 51,300 | 65,200 | 39,500 | 15,500 | 24,200 | 16,000 |
| 17 | 32,300 | 48,400 | 22,000 | 20,900 | 20,600 | 120,000 | 53,200 | 62,300 | 38,800 | 15,400 | 23,900 | 16,100 |
| 18 | 29,300 | 46,400 | 22,100 | 23,000 | 21,000 | 129,000 | 58,300 | 58,000 | 36,000 | 15,100 | 23,000 | 14,700 |
| 19 | 27,900 | 43,000 | 22,100 | 26,700 | 20,000 | 134,000 | 59,700 | 56,000 | 33,200 | 15,200 | 23,800 | 12,100 |
| 20 | 26,800 | 40,200 | 22,300 | 27,200 | 18,500 | 135,000 | 60,300 | 53,200 | 31,100 | 15,000 | 23,900 | 11,400 |
| 21 | 25,200 | 39,400 | 22,700 | 27,200 | 18,800 | 130,000 | 63,600 | 50,800 | 31,300 | 14,200 | 23,000 | 12,700 |
| 22 | 24,100 | 37,800 | 23,000 | 26,900 | 18,800 | 123,000 | 62,300 | 47,800 | 30,700 | 13,600 | 21,800 | 12,600 |
| 23 | 28,200 | 37,400 | 23,100 | 26,600 | 18,800 | 113,000 | 59,700 | 47,500 | 29,900 | 13,500 | 20,000 | 13,700 |
| 24 | 29,300 | 34,600 | 22,900 | 26,500 | 19,700 | 106,000 | 56,700 | 46,200 | 29,600 | 12,700 | 30,100 | 15,900 |
| 25 | 29,600 | 33,300 | 22,800 | 26,400 | 19,500 | 99,600 | 54,300 | 44,100 | 26,000 | 13,700 | 26,200 | 15,300 |
| 26 | 30,300 | 32,400 | 22,800 | 26,400 | 19,400 | 93,200 | 54,200 | 45,700 | 24,800 | 14,400 | 26,500 | 19,200 |
| 27 | 30,100 | 31,000 | 22,700 | 26,300 | 18,500 | 88,000 | 51,900 | 46,400 | 24,500 | 16,400 | 26,900 | 24,400 |
| 28 | 31,800 | 29,000 | 22,700 | 26,300 | 18,500 | 82,900 | 50,000 | 54,500 | 22,900 | 17,600 | 21,300 | 27,000 |
| 29 | 32,000 | 27,200 | 22,600 | 24,800 | ------ | 80,500 | 46,500 | 59,800 | 22,300 | 17,100 | 19,700 | 27,200 |
| 30 | 31,700 | 26,400 | 22,700 | 23,500 | ------ | 77,400 | 46,700 | 63,700 | 21,600 | 16,200 | 20,500 | 27,200 |
| 31 | 32,100 | ------ | 22,900 | 22,400 | ------ | 74,400 | ------ | 64,700 | ------ | 16,500 | 20,500 | ------ |
| TOTAL | 1,078.9M | 1,264.1M | 612,200 | 723,400 | 565,800 | 2,304.4M | 1,702.9M | 1,929.7M | 1,252.9M | 529,300 | 676,600 | 577,700 |
| MEAN | 34,800 | 42,140 | 19,750 | 23,340 | 20,210 | 76,920 | 56,760 | 62,250 | 41,760 | 17,070 | 21,830 | 19,260 |
| MAX | 47,000 | 57,300 | 24,300 | 27,200 | 22,600 | 135,000 | 71,400 | 87,600 | 63,700 | 22,100 | 30,100 | 27,200 |
| MIN | 24,100 | 26,400 | 12,300 | 20,500 | 18,500 | 17,700 | 45,400 | 44,100 | 21,600 | 12,700 | 15,100 | 11,400 |
| CFSM | .59 | .71 | .33 | .39 | .34 | 1.30 | .96 | 1.05 | .71 | .29 | .37 | .33 |
| IN. | .68 | .79 | .38 | .45 | .36 | 1.50 | 1.07 | 1.21 | .79 | .33 | .43 | .36 |

CAL YR 1972 TOTAL 14,393,900 MEAN 39,330 MAX 98,400 MIN 12,300 CFSM .66 IN 9.04
WTR YR 1973 TOTAL 13,297,900 MEAN 36,430 MAX 135,000 MIN 11,400 CFSM .62 IN 8.36

M Expressed in thousands.

## 05379400 Trempealeau River at Arcadia, Wis.

LOCATION.--Lat 44°15'15", long 91°30'25", in SW¼ sec.32, T.21 N., R.9 W., Trempealeau County, near right bank on downstream side of bridge on State Highway 93 and 95 in Arcadia, 0.5 mi (0.8 km) downstream from Turton Creek.

DRAINAGE AREA.--552 $mi^2$ (1,430 $km^2$).

PERIOD OF RECORD.--July 1960 to current year.

GAGE.--Nonrecording gage and crest-stage gage. Datum of gage is 719.61 ft (219.337 m) above mean sea level.

AVERAGE DISCHARGE.--13 years, 376 $ft^3/s$ (10.65 $m^3/s$), 9.25 in/yr (235 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,580 $ft^3/s$ (158 $m^3/s$) Mar. 11, gage height, 6.59 ft (2.009 m); minimum daily, 240 $ft^3/s$ (6.80 $m^3/s$) Feb. 16.
Period of record: Maximum discharge, 9,740 $ft^3/s$ (276 $m^3/s$) Apr. 6, 1965, gage height, 7.15 ft (2.179 m), from graph based on gage readings and from rating curve extended above 7,000 $ft^3/s$ (198 $m^3/s$); maximum gage height observed, 8.04 ft (2.451 m) Mar. 2, 1965 (backwater from ice); minimum discharge observed, 110 $ft^3/s$ (3.12 $m^3/s$) Aug. 8, 9, 19, 1964.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WRD Wis. 1970: 1968, 1969.

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Mar. 7-30; stage-discharge relation affected by ice Dec. 2 to Feb. 26.)

| Oct. 1 to May 28 | | | | May 29 to Sept. 30 | |
|---|---|---|---|---|---|
| 1.1 | 210 | 4.0 | 1,390 | 1.8 | 324 |
| 1.5 | 332 | 5.0 | 1,930 | 2.0 | 400 |
| 2.0 | 518 | 6.0 | 2,820 | 3.0 | 850 |
| 3.0 | 934 | 7.0 | 4,950 | 4.0 | 1,490 |
| | | | | 5.0 | 2,300 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,450 | 615 | 425 | 560 | 460 | 395 | 657 | 1,480 | 892 | 512 | 385 | 452 |
| 2 | 997 | 926 | 400 | 560 | 470 | 440 | 783 | 2,690 | 760 | 560 | 373 | 432 |
| 3 | 774 | 1,240 | 380 | 560 | 470 | 648 | 779 | 2,360 | 826 | 600 | 362 | 460 |
| 4 | 926 | 867 | 360 | 520 | 470 | 1,040 | 783 | 1,910 | 946 | 520 | 351 | 500 |
| 5 | 808 | 732 | 350 | 520 | 460 | 1,070 | 728 | 1,490 | 1,190 | 472 | 362 | 440 |
| 6 | 812 | 648 | 350 | 450 | 450 | 812 | 665 | 1,110 | 796 | 456 | 370 | 408 |
| 7 | 732 | 825 | 350 | 470 | 420 | 1,860 | 858 | 1,070 | 730 | 448 | 560 | 392 |
| 8 | 636 | 968 | 350 | 520 | 400 | 3,050 | 888 | 1,530 | 695 | 432 | 808 | 400 |
| 9 | 566 | 791 | 350 | 580 | 380 | 2,320 | 724 | 1,480 | 654 | 416 | 850 | 396 |
| 10 | 522 | 716 | 360 | 560 | 350 | 1,640 | 678 | 1,290 | 627 | 400 | 681 | 392 |
| 11 | 530 | 648 | 370 | 560 | 320 | 4,620 | 741 | 1,090 | 584 | 392 | 504 | 392 |
| 12 | 534 | 606 | 380 | 540 | 300 | 4,770 | 842 | 1,020 | 654 | 392 | 440 | 385 |
| 13 | 510 | 582 | 400 | 540 | 280 | 3,060 | 1,000 | 879 | 681 | 389 | 416 | 370 |
| 14 | 482 | 558 | 410 | 540 | 260 | 2,150 | 1,100 | 837 | 618 | 385 | 416 | 370 |
| 15 | 425 | 542 | 430 | 520 | 250 | 2,620 | 1,610 | 795 | 576 | 381 | 420 | 366 |
| 16 | 440 | 542 | 410 | 520 | 240 | 1,810 | 2,270 | 770 | 572 | 381 | 420 | 377 |
| 17 | 432 | 538 | 380 | 520 | 260 | 1,460 | 3,110 | 758 | 806 | 370 | 456 | 385 |
| 18 | 417 | 530 | 330 | 700 | 300 | 1,150 | 2,360 | 741 | 640 | 373 | 432 | 392 |
| 19 | 402 | 518 | 310 | 900 | 370 | 980 | 1,510 | 749 | 740 | 970 | 392 | 377 |
| 20 | 388 | 510 | 330 | 800 | 420 | 909 | 1,260 | 749 | 654 | 492 | 392 | 370 |
| 21 | 470 | 502 | 360 | 740 | 430 | 846 | 1,080 | 741 | 592 | 408 | 385 | 362 |
| 22 | 510 | 490 | 400 | 680 | 430 | 800 | 972 | 833 | 560 | 400 | 408 | 358 |
| 23 | 871 | 478 | 420 | 640 | 440 | 762 | 905 | 825 | 576 | 385 | 1,720 | 354 |
| 24 | 951 | 478 | 450 | 580 | 430 | 745 | 833 | 825 | 592 | 381 | 1,360 | 354 |
| 25 | 762 | 494 | 470 | 560 | 420 | 724 | 787 | 1,120 | 536 | 400 | 1,080 | 389 |
| 26 | 665 | 514 | 480 | 540 | 410 | 699 | 745 | 1,100 | 536 | 408 | 568 | 584 |
| 27 | 582 | 502 | 450 | 520 | 402 | 678 | 699 | 968 | 636 | 452 | 528 | 922 |
| 28 | 534 | 478 | 440 | 480 | 388 | 661 | 674 | 1,150 | 582 | 440 | 504 | 600 |
| 29 | 502 | 455 | 460 | 440 | ------ | 641 | 674 | 2,090 | 536 | 408 | 468 | 448 |
| 30 | 478 | 451 | 520 | 440 | ------ | 615 | 724 | 1,690 | 524 | 416 | 448 | 432 |
| 31 | 546 | ------ | 580 | 440 | ------ | 586 | ------ | 1,240 | ------ | 404 | 436 | ------ |
| TOTAL | 19,654 | 18,736 | 12,455 | 17,500 | 10,680 | 44,561 | 31,439 | 37,380 | 20,361 | 13,843 | 17,295 | 12,859 |
| MEAN | 634 | 625 | 402 | 565 | 381 | 1,437 | 1,048 | 1,203 | 679 | 447 | 558 | 429 |
| MAX | 1,450 | 1,240 | 580 | 900 | 470 | 4,770 | 3,110 | 2,690 | 1,190 | 970 | 1,720 | 922 |
| MIN | 388 | 451 | 310 | 440 | 240 | 395 | 657 | 741 | 524 | 370 | 351 | 354 |
| CFSM | 1.15 | 1.13 | .73 | 1.02 | .69 | 2.60 | 1.90 | 2.18 | 1.23 | .81 | 1.01 | .78 |
| IN. | 1.32 | 1.26 | .84 | 1.18 | .72 | 3.00 | 2.12 | 2.51 | 1.37 | .93 | 1.17 | .87 |

CAL YR 1972 TOTAL 172,821 MEAN 472 MAX 3,740 MIN 200 CFSM .86 IN 11.65
WTR YR 1973 TOTAL 256,683 MEAN 703 MAX 4,770 MIN 240 CFSM 1.27 IN 17.30

## 05379500 Trempealeau River at Dodge, Wis.

LOCATION.--Lat 44°07'55", long 91°33'14", in SE¼ sec.10, T.19 N., R.10 W., on Trempealeau County line, near left bank on downstream side of highway bridge in Dodge, 9.0 mi (14.5 km) upstream from mouth.

DRAINAGE AREA.--643 $mi^2$ (1,665 $km^2$).

PERIOD OF RECORD.--December 1913 to September 1919, April 1934 to current year.

GAGE.--Nonrecording gage and crest-stage gage. Datum of gage is 661.42 ft (201.601 m) above mean sea level. Prior to Oct. 1, 1966, datum 2.00 ft (0.610 m) higher.

AVERAGE DISCHARGE.--44 years (1914-19, 1934-73), 402 $ft^3/s$ (11.38 $m^3/s$), 8.49 in/yr (216 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,500 $ft^3/s$ (156 $m^3/s$) Mar. 13, gage height, 10.14 ft (3.091 m); minimum daily, 350 $ft^3/s$ (9.91 $m^3/s$) Dec. 19, Feb. 12, 18.
Period of record: Maximum discharge, 17,400 $ft^3/s$ (493 $m^3/s$) Apr. 4, 1956, gage height, 10.35 ft (3.155 m); minimum daily, 98 $ft^3/s$ (2.78 $m^3/s$) Jan. 10, 1938.

REMARKS.--Records are fair.

COOPERATION.--Gage-height record collected in cooperation with Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1238: Drainage area. WSP 1388: 1919(M). WSP 1438: 1914, 1915-18(M), 1934-44(M), 1946-49(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second.)
(Shifting-control method used Oct. 3-22, Mar. 11, 12; stage-discharge relation affected by ice Dec. 4 to Feb. 28.)

| | | | |
|---|---|---|---|
| 2.5 | 310 | 6.0 | 1,450 |
| 3.0 | 430 | 8.0 | 2,440 |
| 4.0 | 720 | 9.0 | 3,390 |
| 5.0 | 1,060 | 10.0 | 5,540 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,500 | 666 | 422 | 600 | 500 | 760 | 659 | 1,260 | 1,470 | 552 | 438 | 502 |
| 2 | 1,880 | 872 | 410 | 740 | 500 | 802 | 806 | 1,710 | 1,010 | 585 | 415 | 499 |
| 3 | 1,330 | 1,280 | 392 | 660 | 540 | 908 | 863 | 3,040 | 881 | 653 | 402 | 527 |
| 4 | 1,090 | 1,350 | 370 | 620 | 560 | 908 | 863 | 2,740 | 978 | 608 | 392 | 588 |
| 5 | 1,060 | 1,010 | 380 | 600 | 540 | 1,220 | 851 | 2,310 | 1,070 | 538 | 390 | 543 |
| 6 | 939 | 799 | 400 | 560 | 540 | 1,050 | 767 | 1,860 | 1,140 | 504 | 385 | 485 |
| 7 | 925 | 834 | 380 | 500 | 520 | 1,240 | 800 | 1,460 | 912 | 491 | 538 | 457 |
| 8 | 775 | 1,080 | 360 | 560 | 500 | 1,710 | 1,050 | 1,430 | 806 | 470 | 698 | 444 |
| 9 | 657 | 1,030 | 370 | 640 | 480 | 2,710 | 968 | 1,550 | 752 | 459 | 920 | 472 |
| 10 | 624 | 886 | 420 | 680 | 460 | 2,390 | 839 | 1,520 | 692 | 457 | 833 | 467 |
| 11 | 591 | 768 | 380 | 680 | 390 | 2,290 | 869 | 1,490 | 647 | 446 | 671 | 457 |
| 12 | 588 | 711 | 380 | 660 | 350 | 4,520 | 902 | 1,270 | 665 | 431 | 538 | 444 |
| 13 | 567 | 663 | 400 | 640 | 380 | 5,140 | 982 | 1,100 | 782 | 410 | 480 | 431 |
| 14 | 552 | 627 | 430 | 600 | 400 | 4,220 | 1,090 | 968 | 698 | 425 | 496 | 433 |
| 15 | 510 | 567 | 440 | 560 | 400 | 2,990 | 1,330 | 893 | 653 | 415 | 488 | 423 |
| 16 | 504 | 576 | 450 | 540 | 410 | 2,050 | 1,010 | 830 | 635 | 410 | 480 | 444 |
| 17 | 489 | 564 | 440 | 540 | 380 | 2,080 | 3,280 | 797 | 659 | 402 | 483 | 459 |
| 18 | 475 | 555 | 400 | 700 | 350 | 1,740 | 3,830 | 764 | 978 | 395 | 488 | 467 |
| 19 | 462 | 546 | 350 | 1,080 | 400 | 1,310 | 2,930 | 749 | 883 | 436 | 477 | 464 |
| 20 | 448 | 530 | 400 | 1,100 | 440 | 1,060 | 2,060 | 737 | 764 | 653 | 451 | 457 |
| 21 | 498 | 525 | 420 | 1,100 | 560 | 947 | 1,660 | 722 | 677 | 462 | 431 | 449 |
| 22 | 573 | 510 | 440 | 1,000 | 620 | 869 | 1,170 | 785 | 623 | 436 | 431 | 438 |
| 23 | 852 | 486 | 460 | 840 | 680 | 827 | 1,170 | 836 | 606 | 400 | 950 | 441 |
| 24 | 1,770 | 480 | 470 | 740 | 700 | 803 | 1,040 | 839 | 632 | 410 | 1,360 | 441 |
| 25 | 1,050 | 472 | 500 | 640 | 720 | 782 | 929 | 917 | 597 | 395 | 1,200 | 472 |
| 26 | 862 | 486 | 540 | 540 | 700 | 767 | 881 | 1,160 | 574 | 436 | 1,100 | 477 |
| 27 | 720 | 587 | 500 | 620 | 660 | 740 | 827 | 1,160 | 674 | 459 | 761 | 902 |
| 28 | 642 | 498 | 460 | 660 | 700 | 713 | 791 | 1,240 | 665 | 485 | 623 | 809 |
| 29 | 591 | 492 | 500 | 620 | ------ | 692 | 776 | 1,460 | 608 | 444 | 549 | 779 |
| 30 | 552 | 478 | 600 | 580 | ------ | 686 | 812 | 1,610 | 597 | 560 | 529 | 543 |
| 31 | 585 | ------ | 700 | 540 | ------ | 671 | ------ | 1,720 | ------ | 475 | 494 | ------ |
| TOTAL | 25,661 | 20,848 | 13,644 | 21,060 | 14,380 | 50,395 | 37,605 | 40,927 | 23,328 | 14,702 | 18,891 | 15,214 |
| MEAN | 828 | 695 | 440 | 679 | 514 | 1,626 | 1,254 | 1,320 | 778 | 474 | 609 | 507 |
| MAX | 2,500 | 1,350 | 780 | 1,100 | 720 | 5,140 | 3,830 | 3,040 | 1,470 | 653 | 1,360 | 902 |
| MIN | 448 | 472 | 350 | 500 | 350 | 671 | 659 | 722 | 574 | 395 | 385 | 423 |
| CFSM | 1.29 | 1.08 | .68 | 1.06 | .80 | 2.53 | 1.95 | 2.05 | 1.21 | .74 | .95 | .79 |
| IN. | 1.48 | 1.21 | .79 | 1.22 | .83 | 2.92 | 2.18 | 2.37 | 1.35 | .85 | 1.09 | .88 |

CAL YR 1972 TOTAL 74,278 MEAN 203 MAX 5,210 MIN 210 CFSM .32 IN 4.30
WTR YR 1973 TOTAL 296,655 MEAN 813 MAX 5,140 MIN 350 CFSM 1.26 IN 17.16

## 05381000 Black River at Neillsville, Wis.

LOCATION.--Lat 44°33'35", long 90°36'54", in sec.15, T.24 N., R.2 W., Clark County, on right bank at downstream side of bridge on U.S. Highway 10 in Neillsville, 1.0 mi (1.6 km) downstream from O'Neill Creek, and 2.6 mi (4.2 km) upstream from Cunningham Creek.

DRAINAGE AREA.--756 $mi^2$ (1,958 $km^2$).

PERIOD OF RECORD.--April 1905 to March 1909, October 1913 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 962.77 ft (293.452 m) above mean sea level (levels by U.S. Weather Bureau). Prior to Oct. 24, 1954, nonrecording gage.

AVERAGE DISCHARGE.--63 years (1905-8, 1913-73), 584 $ft^3/s$ (16.54 $m^3/s$), 10.49 in/yr (266 mm/yr).

EXTREMES.--Current year: Maximum discharge, 19,900 $ft^3/s$ (564 $m^3/s$) May 2, gage height, 15.91 ft (4.849 m); minimum, 38 $ft^3/s$ (1.08 $m^3/s$) July 22, gage height, 2.60 ft (0.792 m).

Period of record: Maximum discharge, 48,800 $ft^3/s$ (1,380 $m^3/s$) Sept. 10, 1938, gage height, 23.8 ft (7.25 m); minimum, 0.6 $ft^3/s$ (0.017 $m^3/s$) Aug. 15, 1936, gage height, 1.84 ft (0.561 m).

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 805: Drainage area. WSP 1308: 1914. WSP 1438: 1905, 1906-8(M), 1914-17(M), 1918-19, 1920-25(M), 1926-27, 1928-29(M), 1930, 1931(M), 1932, 1933(M), 1934, 1935(M), 1936. WSP 1508: 1950.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 24-27, Nov. 30 to Mar. 11.)

| | | | | | |
|---|---|---|---|---|---|
| 2.6 | 37 | 4.0 | 401 | 10.0 | 6,760 |
| 2.8 | 65 | 5.0 | 870 | 12.0 | 10,600 |
| 3.0 | 101 | 6.0 | 1,520 | 14.0 | 15,100 |
| 3.5 | 226 | 8.0 | 3,520 | 15.0 | 17,600 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3,640 | 438 | 150 | 1,280 | 280 | 130 | 647 | 5,090 | 821 | 91 | 59 | 43 |
| 2 | 1,940 | 2,450 | 150 | 1,080 | 270 | 140 | 961 | 15,200 | 645 | 249 | 68 | 41 |
| 3 | 1,200 | 5,900 | 150 | 880 | 260 | 300 | 2,940 | 12,200 | 619 | 268 | 57 | 114 |
| 4 | 1,290 | 4,510 | 140 | 820 | 240 | 800 | 2,440 | 7,430 | 682 | 140 | 54 | 289 |
| 5 | 1,680 | 2,780 | 140 | 720 | 230 | 2,100 | 1,860 | 4,150 | 799 | 113 | 49 | 277 |
| 6 | 1,560 | 1,850 | 140 | 640 | 210 | 1,800 | 1,380 | 2,240 | 596 | 98 | 48 | 382 |
| 7 | 1,330 | 2,170 | 140 | 680 | 200 | 5,800 | 2,190 | 2,140 | 580 | 85 | 68 | 425 |
| 8 | 990 | 2,490 | 130 | 540 | 190 | 6,800 | 1,390 | 3,280 | 406 | 76 | 95 | 333 |
| 9 | 755 | 1,960 | 130 | 580 | 180 | 5,800 | 1,060 | 2,590 | 339 | 71 | 129 | 219 |
| 10 | 560 | 1,420 | 130 | 470 | 170 | 5,000 | 798 | 2,130 | 271 | 68 | 122 | 157 |
| 11 | 503 | 1,030 | 130 | 450 | 160 | 8,800 | 735 | 1,960 | 238 | 62 | 141 | 125 |
| 12 | 518 | 823 | 120 | 430 | 150 | 16,600 | 973 | 1,680 | 294 | 59 | 136 | 105 |
| 13 | 490 | 691 | 120 | 400 | 140 | 13,800 | 1,720 | 1,260 | 262 | 56 | 107 | 93 |
| 14 | 421 | 563 | 120 | 380 | 130 | 14,300 | 2,900 | 956 | 215 | 51 | 87 | 84 |
| 15 | 354 | 460 | 120 | 370 | 130 | 12,300 | 4,640 | 749 | 183 | 49 | 74 | 76 |
| 16 | 306 | 385 | 120 | 370 | 130 | 8,630 | 13,600 | 683 | 188 | 51 | 66 | 70 |
| 17 | 269 | 337 | 120 | 370 | 130 | 5,420 | 10,900 | 493 | 679 | 49 | 61 | 66 |
| 18 | 240 | 317 | 120 | 580 | 120 | 3,040 | 6,410 | 422 | 390 | 46 | 57 | 63 |
| 19 | 217 | 284 | 110 | 1,500 | 120 | 1,960 | 3,550 | 371 | 290 | 47 | 55 | 58 |
| 20 | 201 | 260 | 110 | 1,200 | 120 | 1,390 | 2,080 | 327 | 209 | 42 | 66 | 56 |
| 21 | 225 | 260 | 110 | 940 | 120 | 1,090 | 1,410 | 385 | 164 | 41 | 86 | 53 |
| 22 | 280 | 215 | 110 | 880 | 120 | 905 | 1,080 | 796 | 139 | 40 | 78 | 54 |
| 23 | 2,060 | 173 | 110 | 780 | 120 | 805 | 946 | 746 | 131 | 46 | 105 | 53 |
| 24 | 3,170 | 180 | 110 | 600 | 120 | 756 | 863 | 1,060 | 123 | 46 | 79 | 52 |
| 25 | 2,500 | 180 | 110 | 520 | 120 | 756 | 715 | 11,000 | 107 | 44 | 68 | 50 |
| 26 | 1,670 | 170 | 110 | 450 | 120 | 783 | 569 | 9,600 | 101 | 45 | 62 | 64 |
| 27 | 1,100 | 170 | 120 | 400 | 120 | 880 | 459 | 5,110 | 97 | 62 | 59 | 86 |
| 28 | 807 | 168 | 130 | 360 | 120 | 750 | 382 | 6,540 | 96 | 61 | 56 | 143 |
| 29 | 633 | 162 | 140 | 330 | ------ | 701 | 320 | 4,800 | 95 | 62 | 51 | 351 |
| 30 | 508 | 160 | 180 | 310 | ------ | 660 | 383 | 2,440 | 95 | 65 | 47 | 368 |
| 31 | 466 | ------ | 600 | 300 | ------ | 620 | ------ | 1,300 | ------ | 61 | 45 | ------ |
| TOTAL | 31,811 | 32,964 | 4,420 | 19,050 | 4,520 | 122,762 | 69,329 | 109,688 | 9,710 | 2,336 | 2,327 | 4,358 |
| MEAN | 1,026 | 3,099 | 143 | 615 | 161 | 3,960 | 2,311 | 3,538 | 324 | 75.4 | 75.1 | 145 |
| MAX | 3,600 | 8,900 | 600 | 1,500 | 280 | 16,600 | 13,600 | 15,200 | 821 | 260 | 141 | 425 |
| MIN | 201 | 160 | 110 | 300 | 120 | 130 | 383 | 305 | 95 | 40 | 45 | 41 |
| CFSM | 1.36 | 1.45 | .19 | .81 | .21 | 5.24 | 3.06 | 4.68 | .43 | .10 | .10 | .19 |
| IN. | 1.57 | 1.62 | .22 | .94 | .22 | 6.04 | 3.41 | 5.40 | .48 | .11 | .11 | .21 |

CAL YR 1972 TOTAL 367,939 MEAN 1,005 MAX 13,600 MIN 38 CFSM 1.33 IN 18.18
WTR YR 1973 TOTAL 413,275 MEAN 1,132 MAX 16,600 MIN 40 CFSM 1.50 IN 20.34

PEAK DISCHARGE (BASE, 5,000 $FT^3/S$)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11- 3 | 0500 | 9.75 | 6,310 | 5- 2 | 1500 | 15.91 | 19,900 |
| 3-11 | - | - | a17,000 | 5-25 | 0700 | 13.49 | 13,800 |
| 4-16 | 1200 | 13.93 | 14,900 | | | | |

a About.

## 05382000 Black River near Galesville, Wis.

LOCATION.--Lat 44°04'22", long 91°17'41", in SW¼ sec.1, T.18 N., R.8 W., LaCrosse County, on left bank 1,000 ft (305 m) upstream from bridge on U.S. Highway 53, 4.5 mi (7.2 km) southeast of Galesville, and 4.8 mi (7.7 km) downstream from Fleming Creek.

DRAINAGE AREA.--2,120 mi² (5,490 km²), approximately.

PERIOD OF RECORD.--December 1931 to current year.

GAGE.--Water-stage recorder. Datum of gage is 658.43 ft (200.689 m) above mean sea level, unadjusted. Prior to Apr. 2, 1941, nonrecording gage on bridge 1,000 ft (305 m) downstream at same datum. Apr. 3, 1941, to Oct. 1, 1971, water-stage recorder at site 1,100 ft (335 m) downstream at same datum.

AVERAGE DISCHARGE.--41 years (1932-73), 1,686 ft³/s (47.75 m³/s) 10.80 in/yr (274 mm/yr).

EXTREMES.--Current year: Maximum discharge, 36,300 ft³/s (1,030 m³/s) Mar. 13, gage height, 14.51 ft (4.423 m); minimum daily, 630 ft³/s (17.8 m³/s) Sept. 15.
Period of record: Maximum discharge, 65,500 ft³/s (1,850 m³/s) Apr. 1, 1967, gage height, 14.63 ft (4.459 m); minimum observed, 180 ft³/s (5.10 m³/s) Dec. 20, 1932.

REMARKS.--Records good except those for winter periods, which are fair. Flow partly regulated by Hatfield dam powerplant where drainage area is 1,290 mi² (3,340 km²) and storage capacity is 272,000,000 ft³ (7.70 hm³). Water diverted periodically from basin into Lemonweir River basin for cranberry culture.

REVISIONS (WATER YEARS).--WSP 1438: 1932-34, 1935-36(M).

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Nov. 14 to Dec. 2; stage-discharge relation affected by ice Dec. 3 to Mar. 7.)

| Oct. 1 to Mar. 12 | | | | Mar. 13 to Sept. 30 | | | |
|---|---|---|---|---|---|---|---|
| 2.0 | 530 | 6.0 | 4,050 | 1.3 | 600 | 8.0 | 6,790 |
| 2.5 | 840 | 8.0 | 6,790 | 2.0 | 1,020 | 10.0 | 10,600 |
| 3.0 | 1,180 | 10.0 | 10,600 | 2.5 | 1,320 | 12.0 | 16,600 |
| 4.0 | 1,950 | 12.0 | 16,600 | 3.0 | 1,660 | 14.0 | 29,600 |
| | | 13.0 | 21,000 | 4.0 | 2,370 | 14.5 | 36,100 |
| | | | | 6.0 | 4,130 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 13,000 | 2,050 | 1,320 | 2,300 | 2,100 | 1,600 | 2,260 | 2,700 | 9,750 | 1,180 | 709 | 692 |
| 2 | 11,500 | 2,400 | 1,300 | 2,000 | 2,300 | 1,700 | 2,350 | 3,050 | 5,000 | 1,120 | 667 | 685 |
| 3 | 9,000 | 3,020 | 1,100 | 3,400 | 2,400 | 1,900 | 2,670 | 10,600 | 3,660 | 1,170 | 659 | 676 |
| 4 | 7,400 | 5,020 | 1,000 | 3,500 | 2,400 | 1,900 | 3,630 | 29,000 | 3,130 | 1,220 | 633 | 672 |
| 5 | 6,200 | 7,020 | 940 | 3,200 | 2,300 | 2,000 | 4,440 | 19,000 | 2,990 | 1,210 | 645 | 700 |
| 6 | 4,800 | 8,840 | 900 | 2,500 | 2,100 | 3,000 | 4,810 | 13,400 | 2,940 | 1,160 | 750 | 720 |
| 7 | 4,500 | 6,350 | 840 | 1,800 | 2,000 | 3,800 | 4,630 | 9,440 | 3,140 | 1,200 | 991 | 760 |
| 8 | 3,200 | 5,060 | 800 | 1,900 | 1,800 | 4,570 | 4,500 | 6,530 | 2,550 | 1,140 | 1,010 | 700 |
| 9 | 2,600 | 4,760 | 780 | 2,000 | 1,400 | 10,500 | 5,530 | 6,460 | 2,300 | 956 | 1,060 | 660 |
| 10 | 2,200 | 4,810 | 740 | 2,000 | 1,100 | 19,100 | 5,400 | 8,660 | 2,150 | 944 | 941 | 660 |
| 11 | 2,100 | 4,230 | 680 | 2,000 | 1,100 | 18,000 | 4,570 | 7,950 | 1,600 | 905 | 870 | 700 |
| 12 | 1,980 | 3,330 | 640 | 1,900 | 940 | 20,500 | 3,630 | 6,500 | 1,760 | 893 | 786 | 700 |
| 13 | 1,670 | 2,260 | 700 | 1,900 | 860 | 34,200 | 3,440 | 5,500 | 1,900 | 873 | 747 | 684 |
| 14 | 1,610 | 2,140 | 800 | 1,800 | 800 | 30,500 | 4,150 | 4,600 | 2,410 | 856 | 744 | 650 |
| 15 | 1,590 | 2,130 | 960 | 1,700 | 800 | 27,400 | 5,290 | 3,270 | 2,430 | 786 | 772 | 630 |
| 16 | 1,530 | 2,020 | 940 | 1,600 | 800 | 27,000 | 7,770 | 2,960 | 2,310 | 769 | 745 | 640 |
| 17 | 1,400 | 1,800 | 880 | 1,600 | 800 | 20,400 | 16,900 | 2,700 | 2,310 | 764 | 713 | 640 |
| 18 | 1,320 | 1,730 | 840 | 1,500 | 820 | 15,600 | 32,500 | 2,500 | 3,100 | 833 | 718 | 640 |
| 19 | 1,290 | 1,670 | 880 | 2,100 | 800 | 11,400 | 20,700 | 2,300 | 4,610 | 802 | 721 | 693 |
| 20 | 1,260 | 1,610 | 840 | 2,400 | 760 | 7,790 | 13,000 | 2,200 | 4,430 | 747 | 855 | 640 |
| 21 | 1,260 | 1,570 | 940 | 3,000 | 1,000 | 4,730 | 9,440 | 2,160 | 3,450 | 755 | 646 | 637 |
| 22 | 1,270 | 1,530 | 1,100 | 3,700 | 1,200 | 3,170 | 6,570 | 1,870 | 2,630 | 770 | 669 | 720 |
| 23 | 1,570 | 1,510 | 1,200 | 3,600 | 1,200 | 2,940 | 4,750 | 2,160 | 2,320 | 721 | 1,170 | 696 |
| 24 | 2,940 | 1,480 | 1,300 | 3,300 | 1,200 | 2,890 | 4,230 | 2,300 | 2,110 | 701 | 1,200 | 720 |
| 25 | 4,920 | 1,430 | 1,300 | 2,600 | 1,200 | 2,790 | 3,830 | 2,590 | 1,850 | 734 | 1,160 | 672 |
| 26 | 6,740 | 1,400 | 1,300 | 2,500 | 1,200 | 2,720 | 3,370 | 4,330 | 1,510 | 780 | 1,090 | 744 |
| 27 | 5,960 | 1,390 | 1,200 | 2,400 | 1,300 | 2,600 | 2,860 | 13,900 | 1,570 | 742 | 924 | 780 |
| 28 | 4,490 | 1,370 | 1,400 | 2,300 | 1,400 | 2,510 | 2,660 | 16,400 | 1,500 | 686 | 890 | 714 |
| 29 | 2,890 | 1,350 | 1,500 | 2,100 | ------ | 2,460 | 2,530 | 12,400 | 1,410 | 758 | 818 | 732 |
| 30 | 2,270 | 1,330 | 1,700 | 2,000 | ------ | 2,390 | 2,440 | 14,800 | 1,320 | 803 | 769 | 714 |
| 31 | 2,090 | ------ | 1,900 | 2,000 | ------ | 2,300 | ------ | 13,800 | ------ | 737 | 730 | ------ |
| TOTAL | 116,550 | 87,490 | 32,640 | 73,400 | 38,000 | 295,160 | 195,650 | 237,850 | 85,120 | 27,715 | 25,600 | 20,671 |
| MEAN | 3,760 | 2,916 | 1,054 | 2,368 | 1,360 | 9,521 | 6,522 | 7,673 | 2,837 | 894 | 829 | 689 |
| MAX | 13,000 | 8,800 | 1,900 | 3,700 | 2,400 | 34,200 | 32,500 | 29,800 | 9,750 | 1,220 | 1,200 | 780 |
| MIN | 1,260 | 1,330 | 640 | 1,500 | 760 | 1,600 | 2,260 | 1,870 | 1,320 | 686 | 633 | 630 |
| CFSM | 1.77 | 1.38 | .50 | 1.12 | .64 | 4.49 | 3.08 | 3.62 | 1.34 | .42 | .39 | .33 |
| IN. | 2.05 | 1.54 | .57 | 1.29 | .67 | 5.18 | 3.43 | 4.17 | 1.49 | .49 | .45 | .36 |

CAL YR 1972 TOTAL 773,405 MEAN 2,113 MAX 15,600 MIN 394 CFSM 1.00 IN 13.57
WTR YR 1973 TOTAL 1,236,844 MEAN 3,386 MAX 34,200 MIN 630 CFSM 1.60 IN 21.69

PEAK DISCHARGE (BASE,12,500 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 3-13 | 0600 | 14.51 | 36,300 | 5- 4 | 0900 | 14.28 | 33,300 |
| 4-18 | 0600 | 14.49 | 36,000 | 5-27 | 2100 | 12.40 | 18,300 |

## 05389500 Mississippi River at McGregor, Iowa

LOCATION.--Lat 43°01'29", long 91°10'21", in SE¼ SE¼ sec.22, T.95 N., R.3 W., Clayton County, on right bank in city park at east end of Main Street in McGregor, 2.6 mi (4.2 km) upstream from Wisconsin River, 4.3 mi (6.9 km) downstream from Yellow River, and at mile 633.4 (1,019.1 km) upstream from Ohio River.

DRAINAGE AREA.--67,500 $mi^2$ (174,800 $km^2$), approximately.

PERIOD OF RECORD.--August 1936 to current year.

GAGE.--Water-stage recorder. Datum of gage is 605.30 ft (184.50 m) above mean sea level, adjustment of 1912. Prior to June 1, 1937, and since June 2, 1939, auxiliary water-stage recorder; June 1, 1937 to June 1, 1939, auxiliary nonrecording gage 14.1 mi (22.7 km) upstream in tailwater of dam 9, at datum 5.30 ft (1.615 m) lower.

AVERAGE DISCHARGE.--37 years, 33,530 $ft^3/s$ (950 $m^3/s$), 6.75 in/yr (171 mm/yr), 24,290,000 acre-ft/yr (29,900 $hm^3/yr$).

EXTREMES.--Current year: Maximum daily discharge, 151,000 $ft^3/s$ (4,280 $m^3/s$) Mar. 22, 23; maximum gage height, 20.15 ft (6.142 m) Mar. 21; minimum daily discharge, 13,000 $ft^3/s$ (368 $m^3/s$) Dec. 11; minimum gage height, 6.38 ft (1.945 m) July 25.
Period of record: Maximum daily discharge, 276,000 $ft^3/s$ (7,820 $m^3/s$) Apr. 24, 1965; maximum gage height, 25.38 ft (7.736 m) Apr. 24, 1965; minimum daily discharge, 6,200 $ft^3/s$ (176 $m^3/s$) Dec. 9, 1936; minimum gage height, -0.86 ft (-0.262 m) Aug. 18, 1936.
Maximum stage since at least 1828, that of Apr. 24, 1965.

REMARKS.--Records good except those for winter period, which are fair. Stage-discharge relation affected by backwater from Wisconsin River and Dam 10. Flow regulated by reservoirs and navigation dams.

COOPERATION.--Gage height record at Dam 9 collected in cooperation with Corps of Engineers.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 73,700 | 42,900 | 33,400 | 36,000 | 33,000 | 25,000 | 98,600 | 69,600 | 86,600 | 28,800 | 24,300 | 21,300 |
| 2 | 78,200 | 42,300 | 30,200 | 36,000 | 35,000 | 26,000 | 95,400 | 69,600 | 88,700 | 28,600 | 23,300 | 25,100 |
| 3 | 77,800 | 42,800 | 27,900 | 37,000 | 37,000 | 28,000 | 92,500 | 73,800 | 89,800 | 28,800 | 22,300 | 27,800 |
| 4 | 76,100 | 44,700 | 25,000 | 36,000 | 37,000 | 29,000 | 90,000 | 80,000 | 88,000 | 30,000 | 22,000 | 29,000 |
| 5 | 74,500 | 47,100 | 20,900 | 35,000 | 37,000 | 31,000 | 86,800 | 88,400 | 85,900 | 30,300 | 20,600 | 28,400 |
| 6 | 71,800 | 49,900 | 18,000 | 34,000 | 33,000 | 32,400 | 84,800 | 97,800 | 83,300 | 30,600 | 23,600 | 29,400 |
| 7 | 68,500 | 58,500 | 16,500 | 33,000 | 30,000 | 37,300 | 83,100 | 104,000 | 80,900 | 29,900 | 28,700 | 30,000 |
| 8 | 66,100 | 64,400 | 15,000 | 31,000 | 28,000 | 45,400 | 81,100 | 110,000 | 77,400 | 29,100 | 34,000 | 29,800 |
| 9 | 61,400 | 67,700 | 14,500 | 29,000 | 26,000 | 52,300 | 80,200 | 114,000 | 73,800 | 28,100 | 33,100 | 30,000 |
| 10 | 58,500 | 69,100 | 13,500 | 27,500 | 27,000 | 59,600 | 79,600 | 112,000 | 71,600 | 26,100 | 30,300 | 28,700 |
| 11 | 56,100 | 70,600 | 13,000 | 26,000 | 29,000 | 73,100 | 77,200 | 108,000 | 70,500 | 24,200 | 26,400 | 27,100 |
| 12 | 52,700 | 72,200 | 14,000 | 26,500 | 26,000 | 83,100 | 75,200 | 105,000 | 69,500 | 22,000 | 25,300 | 25,600 |
| 13 | 48,200 | 73,400 | 18,000 | 27,000 | 26,000 | 92,700 | 72,900 | 102,000 | 65,500 | 19,200 | 26,400 | 25,100 |
| 14 | 47,100 | 74,200 | 20,000 | 27,000 | 26,000 | 101,000 | 69,800 | 100,000 | 60,300 | 16,400 | 31,400 | 23,800 |
| 15 | 44,100 | 73,100 | 22,000 | 27,000 | 25,000 | 112,000 | 65,600 | 97,900 | 57,500 | 16,200 | 32,900 | 22,300 |
| 16 | 42,200 | 70,000 | 23,000 | 27,000 | 24,000 | 120,000 | 69,600 | 95,800 | 54,100 | 17,900 | 32,300 | 20,100 |
| 17 | 40,500 | 66,100 | 24,000 | 27,000 | 24,500 | 127,000 | 74,800 | 91,800 | 52,600 | 19,200 | 31,600 | 18,200 |
| 18 | 38,300 | 62,600 | 25,000 | 27,000 | 25,000 | 134,000 | 81,700 | 89,100 | 49,800 | 19,800 | 30,900 | 18,500 |
| 19 | 37,300 | 59,000 | 25,000 | 33,000 | 25,000 | 139,000 | 88,100 | 86,600 | 47,900 | 20,500 | 29,500 | 18,700 |
| 20 | 34,700 | 53,800 | 27,000 | 38,000 | 25,000 | 143,000 | 94,000 | 83,100 | 46,200 | 21,100 | 29,100 | 17,400 |
| 21 | 32,600 | 49,800 | 28,000 | 43,000 | 25,000 | 148,000 | 94,100 | 77,700 | 44,500 | 19,800 | 28,600 | 16,600 |
| 22 | 34,700 | 47,300 | 28,500 | 44,000 | 24,500 | 151,000 | 92,500 | 73,600 | 42,700 | 19,100 | 28,100 | 16,700 |
| 23 | 36,800 | 43,800 | 29,000 | 44,000 | 24,000 | 151,000 | 91,600 | 70,300 | 40,900 | 18,800 | 30,500 | 17,800 |
| 24 | 37,100 | 43,000 | 29,000 | 44,000 | 24,000 | 148,000 | 89,400 | 62,300 | 39,900 | 18,400 | 35,300 | 18,000 |
| 25 | 39,100 | 42,400 | 29,500 | 45,000 | 25,000 | 142,000 | 87,200 | 60,000 | 38,100 | 18,700 | 39,200 | 20,600 |
| 26 | 41,900 | 41,700 | 30,000 | 44,000 | 25,000 | 135,000 | 84,600 | 58,800 | 36,900 | 19,500 | 39,200 | 25,500 |
| 27 | 44,800 | 40,000 | 31,000 | 41,500 | 24,500 | 127,000 | 81,300 | 57,800 | 35,100 | 21,200 | 35,400 | 28,600 |
| 28 | 47,900 | 35,400 | 31,000 | 41,000 | 24,000 | 119,000 | 78,400 | 61,500 | 32,500 | 23,200 | 33,300 | 31,500 |
| 29 | 48,200 | 35,200 | 30,000 | 38,000 | ------ | 114,000 | 75,400 | 69,900 | 29,100 | 24,200 | 29,500 | 35,600 |
| 30 | 46,900 | 34,900 | 31,000 | 35,000 | ------ | 108,000 | 72,800 | 76,100 | 28,200 | 24,600 | 25,300 | 37,500 |
| 31 | 45,300 | ------ | 33,000 | 34,000 | ------ | 102,000 | ------ | 82,200 | ------ | 25,100 | 22,200 | ------ |
| TOTAL | 1,603.1M | 1,617.9M | 755,000 | 1,073.5M | 774,500 | 2,935.9M | 2,488.3M | 2,628.7M | 1,767.8M | 719,400 | 904,600 | 744,700 |
| MEAN | 51,710 | 53,930 | 24,350 | 34,630 | 27,660 | 94,710 | 82,940 | 84,800 | 58,930 | 23,210 | 29,180 | 24,820 |
| MAX | 78,200 | 74,200 | 33,400 | 45,000 | 37,000 | 151,000 | 98,600 | 114,000 | 89,800 | 30,600 | 39,200 | 37,500 |
| MIN | 32,600 | 34,900 | 13,000 | 26,000 | 24,000 | 25,000 | 65,600 | 57,800 | 28,200 | 16,200 | 20,600 | 16,600 |
| CFSM | .77 | .80 | .36 | .51 | .41 | 1.40 | 1.23 | 1.26 | .87 | .34 | .43 | .37 |
| IN. | .88 | .89 | .42 | .59 | .43 | 1.62 | 1.37 | 1.45 | .97 | .40 | .50 | .41 |
| AC-FT | 3,180M | 3,209M | 1,498M | 2,129M | 1,536M | 5,823M | 4,936M | 5,214M | 3,508M | 1,427M | 1,794M | 1,477M |

CAL YR 1972 TOTAL 17,505,800 MEAN 47,830 MAX 116,000 MIN 1,900 CFSM .71 IN 9.65 AC-FT 34,720,000
WTR YR 1973 TOTAL 18,013,400 MEAN 49,350 MAX 151,000 MIN 13,000 CFSM .73 IN 9.93 AC-FT 35,730,000

M Expressed in thousands.

## 05390500 Anvil Lake near Eagle River, Wis.

LOCATION.--Lat 45°57'10", long 89°03'11", in sec.13, T.40 N., R.11 E., Vilas County, near the home of Violet Waggoner on north side of lake, 11 mi (17.7 km) northeast of Eagle River.

DRAINAGE AREA.--3 $mi^2$ (8 $km^2$), approximately. Area of Anvil Lake, 380 acres (1.54 $km^2$).

PERIOD OF RECORD.--August 1936 to current year (fragmentary).

GAGE.--Nonrecording gage. Datum of gage is 90.00 ft (27.4 m) above datum assumed by Wisconsin Department of Natural Resources; gage readings have been reduced to elevations above this datum. Prior to Aug. 13, 1950, staff gage 0.3 mi (0.5 km) south at same datum

EXTREMES.--Current year: Maximum elevation observed, 5.89 ft (1.795 m) May 5; minimum observed, 4.64 ft (1.414 m) Oct. 28.

Period of record: Maximum elevation observed, 7.20 ft (2.195 m) May 3, 7, 17, 21, 24, 28, June 20, 24, 1943; minimum observed, 2.10 ft (0.640 m) July 31, 1964.

REMARKS.--Add 90 ft (27.4 m) to obtain elevation above datum assumed for this lake by Wisconsin Department of Natural Resources. Lake has no surface outlet. Lake was ice covered about Nov. 20 to Apr. 10.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | 5.79 | | | |
| 2 | | | | | | | | | | | | |
| 3 | | | | | | | | | | | 5.52 | |
| 4 | | 4.74 | | | | | | 5.89 | | | | |
| 5 | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | |
| 7 | 4.69 | | | | | | 5.24 | | | 5.62 | | |
| 8 | | | | | | | | | | | | |
| 9 | | | 4.69 | | | | | | 5.79 | | | |
| 10 | | | | | | | | | | | | |
| 11 | | 4.74 | | | | | | | | | 5.52 | |
| 12 | | | | | | | | 5.74 | | | | |
| 13 | | | | 4.79 | | | | | 5.76 | | | |
| 14 | | | | | | | | | | 5.67 | | |
| 15 | | | | | | | | | | | | |
| 16 | | 4.69 | | | | | | | | | | |
| 17 | | | | | | | | | | | 5.52 | |
| 18 | | | | | | | | 5.59 | | | | |
| 19 | | | | | | 5.15 | | | | | | |
| 20 | | | | | | | | | | | | |
| 21 | | | | | | | 5.49 | | | 5.57 | | |
| 22 | | | | | | | | | | | 5.49 | |
| 23 | | | | | | | | | | | | |
| 24 | | | | | | | 5.38 | | | | | |
| 25 | | 4.69 | | | | | | | | 5.61 | | |
| 26 | | | | | | | | 5.74 | | | | |
| 27 | | | 4.71 | | | | | | | | | |
| 28 | 4.64 | | | | | | 5.44 | | | 5.52 | | |
| 29 | | | | | ------ | | | | | | | 5.62 |
| 30 | | | 4.79 | | ------ | | | | | | | ------ |
| 31 | | ------ | | | ------ | | ------ | | ------ | | | |

## 05391000 Wisconsin River at Rainbow Lake, near Lake Tomahawk, Wis.

LOCATION.--Lat 45°49'58", long 89°32'51", in SW¼ SW¼ sec.30, T.39 N., R.8 E., Oneida County, on right bank 400 ft (122 m) upstream from Gilmore Creek, 0.3 mi (0.5 km) downstream from Rainbow Lake, and 2.5 mi (4.0 km) northeast of Lake Tomahawk. Records include flow of Gilmore Creek.

DRAINAGE AREA.--750 mi² (1,940 km²), approximately, includes that of Gilmore Creek.

PERIOD OF RECORD.--July 1936 to current year. Prior to October 1955, published as "at Rainbow Reservoir, near Lake Tomahawk."

GAGE.--Water-stage recorder. Datum of gage is 1,570.05 ft (478.551 m) above mean sea level (Public Service Commission of Wisconsin bench mark).

AVERAGE DISCHARGE.--37 years, 705 ft³/s (19.97 m³/s).

EXTREMES.--Current year: Maximum discharge, 2,770 ft³/s (78.4 m³/s) May 7, gage height, 6.30 ft (1.920 m); minimum daily, 265 ft³/s (7.50 m³/s) Mar. 15.

Period of record: Maximum discharge, 3,570 ft³/s (101 m³/s) Sept. 5, 1941, gage height, 7.59 ft (2.313 m); minimum, 17 ft³/s (0.48 m³/s) Oct. 10-12, 1940; minimum daily, 35 ft³/s (0.99 m³/s) Apr. 6, 1955.

REMARKS.--Records good. Flow regulated by Rainbow Lake and 12 smaller reservoirs above station (see p.137).

REVISIONS (WATER YEARS).--WSP 895: 1937(M), WSP 1508: 1944.

Rating table (gage height, in feet, and discharge, in cubic feet per second).

| | | | |
|---|---|---|---|
| 0.8 | 173 | 3.0 | 875 |
| 1.3 | 284 | 4.0 | 1,350 |
| 1.8 | 430 | 5.0 | 1,920 |
| 2.4 | 630 | 7.0 | 3,270 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,500 | 789 | 1,010 | 1,030 | 996 | 989 | 961 | 1,020 | 979 | 819 | 683 | 514 |
| 2 | 1,300 | 1,360 | 1,010 | 1,030 | 995 | 1,010 | 1,160 | 2,010 | 1,200 | 794 | 663 | 529 |
| 3 | 1,200 | 1,080 | 1,010 | 1,020 | 995 | 1,000 | 1,130 | 2,250 | 1,200 | 881 | 725 | 618 |
| 4 | 1,470 | 1,750 | 1,010 | 1,020 | 991 | 994 | 1,240 | 2,260 | 1,220 | 790 | 797 | 498 |
| 5 | 1,560 | 1,700 | 1,010 | 1,020 | 993 | 984 | 1,200 | 2,260 | 1,230 | 782 | 838 | 547 |
| 6 | 1,560 | 1,700 | 1,010 | 1,020 | 989 | 971 | 1,260 | 2,200 | 1,150 | 784 | 827 | 708 |
| 7 | 1,390 | 1,040 | 1,000 | 1,020 | 1,000 | 853 | 1,360 | 2,530 | 1,020 | 771 | 760 | 833 |
| 8 | 1,200 | 1,080 | 997 | 1,020 | 1,020 | 375 | 1,380 | 2,630 | 1,000 | 755 | 641 | 794 |
| 9 | 1,040 | 1,520 | 995 | 1,020 | 1,020 | 451 | 1,380 | 2,460 | 1,100 | 756 | 518 | 680 |
| 10 | 1,010 | 1,440 | 997 | 1,020 | 1,020 | 534 | 1,220 | 2,520 | 1,250 | 754 | 626 | 676 |
| 11 | 1,020 | 1,470 | 998 | 1,010 | 1,020 | 412 | 871 | 2,500 | 1,220 | 776 | 800 | 721 |
| 12 | 1,020 | 1,460 | 997 | 1,010 | 1,010 | 270 | 593 | 2,430 | 1,130 | 792 | 881 | 772 |
| 13 | 1,010 | 1,390 | 999 | 1,010 | 1,000 | 338 | 667 | 2,290 | 1,100 | 756 | 916 | 790 |
| 14 | 1,020 | 1,110 | 1,000 | 1,010 | 997 | 316 | 754 | 2,110 | 1,100 | 751 | 906 | 833 |
| 15 | 1,000 | 937 | 998 | 1,010 | 997 | 265 | 923 | 1,890 | 1,080 | 786 | 829 | 804 |
| 16 | 920 | 899 | 996 | 1,010 | 999 | 346 | 1,560 | 1,660 | 1,050 | 718 | 732 | 820 |
| 17 | 809 | 879 | 1,000 | 1,000 | 997 | 395 | 1,790 | 1,340 | 1,010 | 689 | 418 | 837 |
| 18 | 767 | 837 | 996 | 1,000 | 989 | 396 | 1,980 | 1,150 | 880 | 752 | 571 | 836 |
| 19 | 785 | 810 | 990 | 1,000 | 979 | 481 | 2,080 | 1,300 | 844 | 841 | 757 | 834 |
| 20 | 849 | 869 | 989 | 1,000 | 976 | 496 | 2,140 | 1,280 | 844 | 870 | 749 | 791 |
| 21 | 870 | 982 | 987 | 1,000 | 991 | 433 | 2,080 | 1,080 | 820 | 852 | 662 | 797 |
| 22 | 864 | 994 | 989 | 1,000 | 1,020 | 454 | 1,890 | 1,240 | 804 | 844 | 689 | 755 |
| 23 | 772 | 987 | 984 | 1,000 | 1,010 | 528 | 1,880 | 1,290 | 843 | 839 | 674 | 667 |
| 24 | 771 | 984 | 983 | 1,000 | 1,010 | 558 | 1,770 | 1,180 | 893 | 798 | 636 | 742 |
| 25 | 963 | 985 | 983 | 999 | 999 | 623 | 1,560 | 1,560 | 883 | 662 | 635 | 833 |
| 26 | 1,110 | 982 | 982 | 997 | 992 | 663 | 1,470 | 1,900 | 837 | 664 | 638 | 857 |
| 27 | 1,110 | 982 | 981 | 993 | 983 | 547 | 1,260 | 1,700 | 760 | 720 | 677 | 739 |
| 28 | 1,100 | 919 | 994 | 993 | 974 | 583 | 996 | 1,750 | 737 | 763 | 755 | 623 |
| 29 | 1,030 | 937 | 1,020 | 990 | ------ | 520 | 727 | 1,620 | 755 | 779 | 883 | 655 |
| 30 | 982 | 981 | 1,020 | 997 | ------ | 564 | 625 | 1,320 | 887 | 758 | 769 | 842 |
| 31 | 842 | ------ | 1,030 | 997 | ------ | 672 | ------ | 852 | ------ | 737 | 674 | ------ |
| TOTAL | 32,980 | 35,605 | 30,965 | 31,254 | 27,962 | 17,741 | 39,907 | 55,742 | 29,814 | 23,963 | 22,257 | 21,944 |
| MEAN | 1,064 | 1,187 | 999 | 1,008 | 999 | 572 | 1,330 | 1,798 | 994 | 773 | 718 | 731 |
| MAX | 1,560 | 1,800 | 1,030 | 1,030 | 1,020 | 1,010 | 2,140 | 2,630 | 1,250 | 870 | 916 | 857 |
| MIN | 767 | 789 | 981 | 993 | 974 | 265 | 593 | 852 | 737 | 662 | 418 | 498 |

CAL YR 1972 TOTAL 307,395 MEAN 840 MAX 1,800 MIN 346
WTR YR 1973 TOTAL 370,134 MEAN 1,014 MAX 2,630 MIN 265

## 05395000 Tomahawk River at Bradley, Wis.

LOCATION.--Lat 45°32'21", long 89°44'47", in NW¼ NW¼ sec.9, T.35 N., R.6 E., Lincoln County, at dam at outlet of Lake Mohegan, 0.5 mi (0.8 km) northeast of Bradley, 4.0 mi (6.4 km) upstream from Jersey powerplant, and 4.7 mi (7.6 km) upstream from mouth.

DRAINAGE AREA.--545 mi² (1,412 km²).

PERIOD OF RECORD.--January 1930 to September 1973 (discontinued). Prior to October 1951, published as "at Tomahawk".

GAGE.--Nonrecording gage and concrete dam, supplemented by frequent readings of tainter-gate openings. Datum of gage is 1,448.24 ft (441.424 m) above mean sea level. Prior to October 1951, powerplant records at site 4.0 mi (6.4 km) downstream.

AVERAGE DISCHARGE.--43 years, 542 ft³/s (15.35 m³/s).

EXTREMES.--Current year: Maximum discharge, 2,250 ft³/s (63.7 m³/s) May 4; minimum, 70 ft³/s (1.98 m³/s) Mar. 11.

Period of record: Maximum discharge, 2,690 ft³/s (76.2 m³/s) Oct. 2, 1959; no flow at times in 1931, 1932, 1934, 1940, 1957.

REMARKS.--Records good except those below 250 ft³/s (7.08 m³/s), which are poor. Flow completely regulated by four reservoirs operated by Wisconsin Valley Improvement Company (see p. 137).

COOPERATION.--Record of lake elevations and gate openings furnished by Wisconsin Valley Improvement Company.

REVISIONS (WATER YEARS).--WSP 875: 1932, 1935, 1938. WSP 1278: 1952.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 506 | 675 | 1,110 | 963 | 740 | 835 | 424 | 997 | 824 | 766 | 726 | 88 |
| 2 | 506 | 874 | 1,060 | 960 | 742 | 826 | 482 | 1,620 | 1,140 | 761 | 729 | 89 |
| 3 | 488 | 1,130 | 1,020 | 959 | 761 | 815 | 539 | 1,910 | 1,430 | 752 | 623 | 91 |
| 4 | 882 | 1,170 | 1,060 | 924 | 750 | 807 | 611 | 2,110 | 1,190 | 745 | 665 | 91 |
| 5 | 730 | 1,330 | 1,070 | 901 | 757 | 795 | 606 | 2,080 | 1,130 | 667 | 748 | 202 |
| 6 | 596 | 1,330 | 1,070 | 946 | 755 | 785 | 529 | 2,080 | 1,050 | 695 | 762 | 303 |
| 7 | 565 | 1,300 | 1,060 | 971 | 752 | 596 | 433 | 2,020 | 951 | 739 | 731 | 324 |
| 8 | 415 | 1,300 | 1,060 | 963 | 809 | 282 | 448 | 2,080 | 950 | 742 | 646 | 450 |
| 9 | 415 | 1,150 | 1,050 | 959 | 845 | 134 | 471 | 2,080 | 869 | 782 | 560 | 457 |
| 10 | 476 | 1,060 | 1,050 | 956 | 834 | 136 | 540 | 2,090 | 861 | 641 | 645 | 634 |
| 11 | 898 | 1,040 | 1,050 | 922 | 829 | 98 | 426 | 2,080 | 1,060 | 752 | 747 | 749 |
| 12 | 957 | 1,000 | 1,050 | 885 | 825 | 73 | 382 | 2,080 | 1,180 | 790 | 887 | 744 |
| 13 | 732 | 1,010 | 1,050 | 843 | 795 | 76 | 270 | 1,950 | 1,180 | 632 | 830 | 775 |
| 14 | 648 | 1,010 | 1,000 | 843 | 721 | 78 | 311 | 1,560 | 984 | 485 | 881 | 835 |
| 15 | 586 | 1,010 | 970 | 843 | 749 | 80 | 551 | 1,520 | 869 | 492 | 789 | 844 |
| 16 | 564 | 1,000 | 969 | 844 | 761 | 83 | 1,150 | 1,560 | 790 | 557 | 567 | 848 |
| 17 | 654 | 1,000 | 968 | 844 | 756 | 84 | 982 | 1,450 | 544 | 725 | 182 | 897 |
| 18 | 744 | 931 | 1,000 | 819 | 756 | 86 | 746 | 1,240 | 511 | 764 | 163 | 921 |
| 19 | 776 | 887 | 985 | 798 | 882 | 139 | 916 | 890 | 554 | 764 | 514 | 917 |
| 20 | 810 | 882 | 965 | 789 | 855 | 172 | 987 | 714 | 674 | 748 | 672 | 914 |
| 21 | 830 | 881 | 967 | 788 | 895 | 173 | 840 | 873 | 773 | 824 | 624 | 912 |
| 22 | 828 | 878 | 967 | 787 | 904 | 175 | 751 | 1,280 | 612 | 855 | 604 | 881 |
| 23 | 829 | 928 | 967 | 786 | 895 | 230 | 655 | 1,150 | 638 | 857 | 574 | 850 |
| 24 | 827 | 960 | 967 | 817 | 885 | 264 | 650 | 1,020 | 811 | 695 | 587 | 855 |
| 25 | 826 | 956 | 966 | 851 | 878 | 265 | 731 | 1,240 | 816 | 587 | 546 | 864 |
| 26 | 826 | 1,040 | 966 | 888 | 865 | 371 | 781 | 1,420 | 787 | 676 | 518 | 864 |
| 27 | 790 | 1,040 | 965 | 776 | 856 | 414 | 851 | 1,420 | 786 | 752 | 569 | 641 |
| 28 | 732 | 829 | 964 | 774 | 846 | 410 | 835 | 1,560 | 783 | 785 | 678 | 562 |
| 29 | 711 | 907 | 963 | 804 | ——— | 380 | 775 | 1,480 | 778 | 745 | 717 | 650 |
| 30 | 712 | 1,080 | 963 | 824 | ——— | 260 | 775 | 1,510 | 736 | 649 | 713 | 737 |
| 31 | 712 | ——— | 963 | 829 | ——— | 325 | ——— | 1,030 | ——— | 618 | 485 | ——— |
| TOTAL | 21,631 | 30,679 | 31,235 | 26,739 | 22,604 | 10,175 | 19,367 | 48,274 | 26,181 | 21,874 | 19,376 | 18,949 |
| MEAN | 698 | 1,023 | 1,008 | 863 | 807 | 328 | 646 | 1,557 | 873 | 706 | 625 | 632 |
| MAX | 957 | 1,380 | 1,110 | 971 | 904 | 835 | 1,150 | 2,110 | 1,430 | 857 | 830 | 921 |
| MIN | 415 | 675 | 963 | 774 | 721 | 73 | 270 | 714 | 511 | 485 | 163 | 88 |

CAL YR 1972 TOTAL 255,760 MEAN 699 MAX 1,380 MIN 16
WTR YR 1973 TOTAL 297,004 MEAN 814 MAX 2,110 MIN 73

## 05393500 Spirit River at Spirit Falls, Wis.

LOCATION.--Lat 45°26'58", long 89°58'47", in NW¼ sec.10, T.34 N., R.4 E., Lincoln County, near center of span on downstream side of bridge 0.2 mi (0.3 km) south of Spirit Falls, 0.6 mi (1.0 km) upstream from Squaw Creek, and 2.0 mi (3.2 km) downstream from Richie Creek.

DRAINAGE AREA.--82 $mi^2$ (212 $km^2$), approximately.

PERIOD OF RECORD.--April 1942 to current year.

GAGE.--Nonrecording gage and crest-stage gage. Altitude of gage is 1,450 ft (442 m), from dam and reservoir data.

AVERAGE DISCHARGE.--31 years, 84.2 $ft^3/s$ (2.384 $m^3/s$), 13.94 in/yr (354 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,290 $ft^3/s$ (64.8 $m^3/s$) May 2, gage height, 7.20 ft (2.194 m); minimum observed, 6.5 $ft^3/s$ (0.18 $m^3/s$) July 18, 22, 23, gage height, 1.21 ft (0.369 m).

Period of record: Maximum discharge, 4,180 $ft^3/s$ (118 $m^3/s$) Sept. 18, 1942, gage height, 10.00 ft (3.048 m), from rating curve extended above 2,500 $ft^3/s$ (70.8 $m^3/s$); minimum observed, 1.0 $ft^3/s$ (0.028 $m^3/s$) Aug. 11, 1964, gage height, 0.85 ft (0.259 m).

REMARKS.--Records good except those for winter months, which are fair.

REVISIONS (WATER YEARS).--WSP 1208: Drainage area. WSP 1308: 1943(M), 1948-50(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Nov. 17 to Dec. 10, Dec. 13 to Mar. 14.)

| | | | | | |
|---|---|---|---|---|---|
| 1.2 | 6.2 | 2.5 | 122 | 5.0 | 830 |
| 1.4 | 12 | 3.0 | 220 | 6.0 | 1,370 |
| 1.6 | 21 | 3.5 | 335 | 7.0 | 2,130 |
| 2.0 | 52 | 4.0 | 470 | 8.0 | 3,090 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 290 | 91 | 33 | 58 | 47 | 15 | 182 | 467 | 101 | 14 | 16 | 156 |
| 2 | 230 | 350 | 33 | 52 | 49 | 16 | 178 | 2,170 | 91 | 13 | 13 | 94 |
| 3 | 172 | 2,020 | 32 | 47 | 47 | 19 | 196 | 1,490 | 80 | 15 | 11 | 57 |
| 4 | 382 | 527 | 35 | 43 | 43 | 27 | 222 | 1,310 | 85 | 13 | 14 | 148 |
| 5 | 380 | 380 | 36 | 41 | 36 | 42 | 208 | 563 | 109 | 12 | 11 | 124 |
| 6 | 268 | 285 | 35 | 39 | 31 | 60 | 194 | 385 | 88 | 11 | 8.5 | 63 |
| 7 | 236 | 242 | 34 | 38 | 29 | 92 | 174 | 335 | 62 | 10 | 10 | 40 |
| 8 | 184 | 338 | 32 | 36 | 27 | 350 | 156 | 583 | 57 | 8.8 | 17 | 30 |
| 9 | 148 | 278 | 38 | 35 | 25 | 270 | 135 | 476 | 80 | 7.8 | 24 | 28 |
| 10 | 115 | 218 | 29 | 34 | 29 | 230 | 84 | 730 | 80 | 7.8 | 29 | 23 |
| 11 | 96 | 192 | 28 | 34 | 26 | 500 | 117 | 510 | 57 | 8.0 | 16 | 20 |
| 12 | 108 | 166 | 28 | 34 | 24 | 2,080 | 131 | 380 | 48 | 7.5 | 15 | 17 |
| 13 | 94 | 133 | 27 | 33 | 22 | 1,500 | 124 | 250 | 48 | 7.8 | 11 | 15 |
| 14 | 82 | 109 | 26 | 34 | 20 | 1,380 | 115 | 212 | 31 | 8.3 | 15 | 18 |
| 15 | 73 | 90 | 25 | 35 | 18 | 1,640 | 295 | 166 | 28 | 6.7 | 16 | 16 |
| 16 | 61 | 63 | 25 | 38 | 18 | 1,820 | 1,290 | 144 | 30 | 6.7 | 13 | 15 |
| 17 | 50 | 66 | 25 | 34 | 17 | 678 | 1,110 | 138 | 44 | 6.7 | 28 | 14 |
| 18 | 48 | 60 | 26 | 40 | 17 | 479 | 587 | 117 | 62 | 6.5 | 48 | 13 |
| 19 | 43 | 54 | 26 | 110 | 16 | 365 | 395 | 104 | 46 | 7.0 | 31 | 12 |
| 20 | 39 | 52 | 26 | 98 | 16 | 315 | 312 | 96 | 40 | 8.8 | 24 | 12 |
| 21 | 49 | 50 | 26 | 92 | 16 | 236 | 288 | 84 | 27 | 7.0 | 19 | 12 |
| 22 | 72 | 52 | 26 | 86 | 15 | 232 | 295 | 74 | 23 | 6.5 | 15 | 18 |
| 23 | 94 | 48 | 24 | 82 | 15 | 248 | 234 | 67 | 28 | 6.5 | 11 | 20 |
| 24 | 214 | 43 | 24 | 80 | 15 | 238 | 188 | 61 | 26 | 7.2 | 12 | 19 |
| 25 | 194 | 42 | 23 | 78 | 15 | 254 | 148 | 335 | 22 | 50 | 12 | 20 |
| 26 | 192 | 42 | 24 | 74 | 15 | 295 | 124 | 530 | 20 | 22 | 11 | 26 |
| 27 | 200 | 42 | 25 | 78 | 15 | 292 | 104 | 335 | 19 | 19 | 11 | 248 |
| 28 | 166 | 40 | 26 | 68 | 15 | 254 | 85 | 238 | 18 | 21 | 10 | 180 |
| 29 | 135 | 37 | 29 | 54 | ------ | 236 | 78 | 158 | 16 | 25 | 8.8 | 111 |
| 30 | 109 | 34 | 34 | 50 | ------ | 214 | 68 | 111 | 15 | 18 | 8.3 | 77 |
| 31 | 93 | ------ | 62 | 48 | ------ | 194 | ------ | 87 | ------ | 18 | 37 | ------ |
| TOTAL | 4,625 | 5,136 | 920 | 1,687 | 678 | 13,595 | 7,889 | 12,642 | 1,472 | 394.6 | 508.6 | 1,646 |
| MEAN | 149 | 171 | 29.7 | 54.4 | 24.2 | 439 | 260 | 408 | 49.1 | 12.7 | 16.4 | 54.9 |
| MAX | 382 | 2,020 | 68 | 110 | 49 | 2,080 | 1,290 | 2,170 | 109 | 50 | 48 | 248 |
| MIN | 39 | 34 | 23 | 33 | 15 | 15 | 68 | 61 | 15 | 6.5 | 8.3 | 12 |
| CFSM | 1.82 | 2.09 | .36 | .66 | .30 | 5.35 | 3.17 | 4.98 | .60 | .15 | .20 | .67 |
| IN. | 2.10 | 2.33 | .42 | .77 | .31 | 6.17 | 3.54 | 5.74 | .67 | .18 | .23 | .75 |

CAL YR 1972 TOTAL 30,749.8 MEAN 109 MAX 1,750 MIN 5.5 CFSM 1.33 IN 18.83
WTR YR 1973 TOTAL 31,113.2 MEAN 140 MAX 2,170 MIN 6.5 CFSM 1.71 IN 23.19

# WISCONSIN RIVER BASIN

## 05394500 Prairie River near Merrill, Wis.

LOCATION.--Lat 45°14'09", long 89°38'59", on line between secs.20 and 29, T.32 N., R.7 E., Lincoln County, on left bank 40 ft (12 m) upstream from County Highway C bridge, 1.5 mi (2.4 km) upstream from Meadow Creek, 4.5 mi (7.2 km) northeast of Merrill, and 8.0 mi (12.9 km) upstream from mouth.

DRAINAGE AREA.--181 mi² (469 km²).

PERIOD OF RECORD.--January 1914 to September 1931, August 1939 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Altitude of gage is 1,300 ft (396 m), from topographic map. Prior to Oct. 9, 1968, nonrecording gage 40 ft (12 m) downstream at same datum.

AVERAGE DISCHARGE.--51 years (1914-31, 1939-73), 181 ft³/s (5.126 m³/s), 13.58 in/yr (345 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,390 ft³/s (67.7 m³/s) Mar. 15, gage height, 6.66 ft (2.030 m); minimum, 84 ft³/s (2.38 m³/s) Aug. 29.

Period of record: Maximum discharge, 5,800 ft³/s (164 m³/s) Aug. 31, 1941, gage height, 9.45 ft (2.880 m), from flood marks, based on rating curve extended above 2,200 ft³/s (62.3 m³/s); minimum observed, 34 ft³/s (0.96 m³/s) Oct. 26, 1947, gage height, 1.39 ft (0.424 m).

REMARKS.--Records good except those for winter months, which are fair.

REVISIONS (WATER YEARS).--WSP 1308: 1915-17(M), 1919-21(M), 1923-31(M), 1942-43(M), 1945(M), 1948-50(M). WSP 1558: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 26 to Mar. 9.)

| | | | |
|---|---|---|---|
| 2.0 | 75 | 4.0 | 645 |
| 2.3 | 123 | 5.0 | 1,170 |
| 3.0 | 285 | 6.0 | 1,860 |
| 3.5 | 445 | 7.0 | 2,700 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 668 | 169 | 120 | 150 | 130 | 98 | 381 | 469 | 267 | 121 | 101 | 586 |
| 2 | 529 | 323 | 120 | 160 | 130 | 100 | 322 | 1,250 | 244 | 114 | 97 | 644 |
| 3 | 452 | 662 | 120 | 160 | 120 | 110 | 377 | 1,840 | 231 | 110 | 94 | 549 |
| 4 | 376 | 651 | 120 | 150 | 120 | 110 | 405 | 1,450 | 296 | 104 | 90 | 514 |
| 5 | 332 | 535 | 120 | 150 | 120 | 110 | 369 | 956 | 333 | 101 | 88 | 441 |
| 6 | 295 | 418 | 120 | 150 | 120 | 120 | 321 | 663 | 278 | 99 | 88 | 343 |
| 7 | 263 | 391 | 120 | 150 | 110 | 140 | 380 | 575 | 238 | 97 | 90 | 249 |
| 8 | 242 | 393 | 120 | 150 | 110 | 660 | 270 | 783 | 226 | 95 | 93 | 193 |
| 9 | 296 | 368 | 120 | 150 | 110 | 520 | 250 | 739 | 222 | 93 | 95 | 169 |
| 10 | 191 | 301 | 120 | 150 | 110 | 617 | 240 | 738 | 219 | 100 | 90 | 152 |
| 11 | 219 | 267 | 120 | 150 | 110 | 1,350 | 230 | 668 | 187 | 104 | 89 | 135 |
| 12 | 226 | 243 | 120 | 150 | 110 | 1,070 | 240 | 589 | 170 | 103 | 87 | 127 |
| 13 | 204 | 219 | 120 | 150 | 110 | 1,680 | 260 | 477 | 166 | 101 | 94 | 119 |
| 14 | 190 | 196 | 120 | 150 | 110 | 2,070 | 320 | 400 | 150 | 103 | 120 | 115 |
| 15 | 170 | 179 | 120 | 150 | 110 | 2,350 | 580 | 324 | 141 | 97 | 133 | 110 |
| 16 | 161 | 171 | 120 | 160 | 110 | 1,880 | 1,300 | 303 | 138 | 94 | 119 | 107 |
| 17 | 155 | 170 | 130 | 160 | 110 | 1,180 | 1,630 | 268 | 141 | 92 | 103 | 108 |
| 18 | 150 | 158 | 130 | 170 | 110 | 797 | 1,240 | 259 | 130 | 90 | 254 | 104 |
| 19 | 141 | 152 | 130 | 190 | 110 | 639 | 828 | 252 | 133 | 89 | 234 | 102 |
| 20 | 137 | 150 | 130 | 200 | 110 | 548 | 613 | 240 | 127 | 88 | 185 | 102 |
| 21 | 155 | 151 | 130 | 180 | 110 | 441 | 520 | 217 | 127 | 88 | 143 | 109 |
| 22 | 180 | 134 | 130 | 170 | 110 | 388 | 463 | 197 | 134 | 92 | 118 | 125 |
| 23 | 252 | 139 | 130 | 160 | 100 | 363 | 401 | 188 | 131 | 87 | 111 | 127 |
| 24 | 322 | 137 | 120 | 160 | 98 | 359 | 347 | 189 | 124 | 94 | 112 | 124 |
| 25 | 294 | 136 | 120 | 150 | 94 | 367 | 301 | 434 | 121 | 102 | 107 | 131 |
| 26 | 258 | 130 | 120 | 140 | 92 | 377 | 250 | 610 | 120 | 106 | 101 | 150 |
| 27 | 236 | 130 | 120 | 140 | 92 | 371 | 232 | 595 | 131 | 109 | 97 | 194 |
| 28 | 218 | 130 | 120 | 130 | 96 | 351 | 214 | 557 | 129 | 118 | 93 | 211 |
| 29 | 200 | 120 | 120 | 130 | ------ | 343 | 197 | 488 | 125 | 118 | 88 | 174 |
| 30 | 177 | 120 | 140 | 130 | ------ | 342 | 187 | 373 | 124 | 113 | 88 | 150 |
| 31 | 169 | ------ | 140 | 130 | ------ | 319 | ------ | 288 | ------ | 105 | 225 | ------ |
| TOTAL | 7,751 | 7,435 | 3,850 | 4,770 | 3,072 | 20,970 | 13,508 | 17,299 | 5,310 | 3,135 | 3,717 | 6,464 |
| MEAN | 250 | 248 | 124 | 154 | 110 | 676 | 450 | 558 | 177 | 101 | 120 | 215 |
| MAX | 668 | 662 | 140 | 200 | 130 | 2,350 | 1,630 | 1,840 | 333 | 121 | 254 | 644 |
| MIN | 137 | 120 | 120 | 130 | 92 | 98 | 187 | 188 | 120 | 87 | 87 | 102 |
| CFSM | 1.38 | 1.37 | .69 | .85 | .61 | 3.73 | 2.49 | 3.08 | .98 | .56 | .66 | 1.19 |
| IN. | 1.59 | 1.53 | .79 | .98 | .63 | 4.31 | 2.78 | 3.56 | 1.09 | .64 | .76 | 1.33 |

CAL YR 1972 TOTAL 74,755 MEAN 204 MAX 1,990 MIN 56 CFSM 1.13 IN 15.36
WTR YR 1973 TOTAL 97,281 MEAN 267 MAX 2,350 MIN 87 CFSM 1.48 IN 19.99

## 05395000 Wisconsin River at Merrill, Wis.

LOCATION.--Lat 45°10'41", long 89°40'52", on line between secs.12 and 13, T.31 N., R.6 E., Lincoln County, on left bank 300 ft (91 m) downstream from Highway 51 bridge at east end of Merrill, and 0.5 mi (0.8 km) downstream from Prairie River.

DRAINAGE AREA.--2,780 mi² (7,200 km²), approximately.

PERIOD OF RECORD.--November 1902 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,228.85 ft (374.553 m) above mean sea level. Prior to June 18, 1903, nonrecording gage at different datum. June 18, 1903, to Sept. 10, 1914, nonrecording gage at present datum.

AVERAGE DISCHARGE.--70 years (1903-73), 2,696 ft³/s (76.35 m³/s).

EXTREMES.--Current year: Maximum discharge, 22,000 ft³/s (623 m³/s) May 3, gage height, 12.60 ft (3.840 m); minimum, 766 ft³/s (21.7 m³/s) Mar. 1, gage height, 3.77 ft (1.149 m).

Period of record: Maximum discharge, 49,400 ft³/s (1,400 m³/s) Aug. 31, 1941, gage height, 18.26 ft (5.566 m) from rating curve extended above 20,000 ft³/s (566 m³/s); minimum, about 90 ft³/s (2.55 m³/s) Sept. 26, 1908, gage height, 2.45 ft (0.747 m).

REMARKS.--Records good except those for winter months, which are fair. Flow regulated by 20 reservoirs (see p. 137) and 9 powerplants above station.

REVISIONS (WATER YEARS).--WSP 805: Drainage area. WSP 1308: 1904-7, 1909-11, 1913. WSP 1508: 1908, 1915-16 (M), 1917, 1920-21(M), 1925(M), 1930, 1935-36.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 25-29, Dec. 2 to Mar. 14.)

| | | | |
|---|---|---|---|
| 4.5 | 1,510 | 9.0 | 9,900 |
| 5.0 | 2,130 | 11.0 | 16,200 |
| 6.0 | 3,690 | 12.0 | 19,800 |
| 7.0 | 5,630 | 13.0 | 23,600 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7,200 | 3,110 | 2,750 | 2,600 | 2,600 | 2,500 | 4,680 | 6,070 | 4,080 | 2,050 | 1,930 | 4,620 |
| 2 | 6,080 | 5,010 | 2,700 | 2,600 | 2,700 | 2,600 | 4,110 | 16,000 | 3,860 | 2,540 | 1,890 | 4,010 |
| 3 | 5,660 | 9,150 | 2,800 | 2,600 | 2,800 | 2,500 | 5,020 | 20,300 | 4,370 | 2,860 | 2,030 | 3,390 |
| 4 | 6,720 | 10,300 | 2,900 | 2,500 | 2,600 | 2,500 | 5,470 | 16,500 | 4,360 | 2,380 | 2,060 | 3,360 |
| 5 | 5,910 | 8,340 | 3,000 | 2,500 | 2,500 | 2,600 | 4,910 | 12,500 | 4,480 | 2,020 | 1,870 | 3,120 |
| 6 | 5,850 | 7,050 | 2,900 | 2,500 | 2,500 | 2,700 | 4,680 | 11,300 | 4,540 | 1,690 | 1,970 | 3,250 |
| 7 | 5,370 | 7,040 | 2,700 | 2,500 | 2,500 | 3,480 | 4,760 | 10,500 | 3,980 | 2,090 | 2,010 | 2,540 |
| 8 | 4,620 | 7,200 | 2,800 | 2,500 | 2,500 | 5,400 | 4,250 | 11,200 | 3,790 | 1,890 | 2,090 | 2,430 |
| 9 | 4,110 | 6,900 | 3,000 | 2,500 | 2,500 | 4,000 | 4,020 | 11,400 | 4,140 | 1,850 | 2,040 | 2,310 |
| 10 | 3,480 | 5,970 | 2,900 | 2,500 | 2,600 | 3,300 | 4,490 | 10,900 | 3,400 | 2,030 | 1,870 | 2,350 |
| 11 | 3,110 | 5,300 | 2,800 | 2,600 | 2,500 | 5,800 | 4,610 | 11,500 | 3,650 | 2,180 | 1,840 | 2,430 |
| 12 | 4,340 | 4,500 | 2,900 | 2,700 | 2,400 | 9,000 | 4,130 | 10,200 | 3,560 | 1,770 | 1,980 | 2,380 |
| 13 | 3,790 | 4,600 | 2,900 | 2,800 | 2,500 | 11,000 | 3,660 | 9,150 | 3,540 | 2,020 | 2,040 | 2,280 |
| 14 | 3,490 | 4,100 | 2,800 | 2,700 | 2,600 | 14,000 | 3,420 | 7,750 | 3,320 | 2,060 | 2,440 | 2,560 |
| 15 | 2,990 | 3,400 | 2,700 | 2,700 | 2,500 | 17,400 | 3,350 | 6,210 | 3,030 | 2,160 | 2,110 | 2,350 |
| 16 | 2,720 | 4,210 | 2,600 | 2,800 | 2,400 | 16,400 | 6,660 | 6,530 | 2,850 | 1,800 | 2,050 | 2,350 |
| 17 | 3,130 | 3,420 | 2,600 | 2,800 | 2,400 | 10,100 | 14,400 | 5,240 | 2,850 | 1,710 | 2,790 | 2,350 |
| 18 | 2,870 | 3,320 | 2,600 | 2,800 | 2,400 | 8,340 | 11,400 | 5,320 | 2,770 | 1,780 | 2,710 | 2,210 |
| 19 | 2,670 | 3,040 | 2,500 | 2,800 | 2,400 | 6,650 | 9,870 | 4,490 | 2,710 | 1,950 | 2,180 | 2,180 |
| 20 | 2,580 | 3,040 | 2,500 | 2,900 | 2,500 | 5,660 | 8,600 | 3,900 | 2,400 | 2,180 | 1,970 | 2,380 |
| 21 | 2,540 | 3,040 | 2,500 | 3,000 | 2,500 | 4,290 | 6,620 | 3,880 | 2,250 | 1,870 | 2,040 | 2,310 |
| 22 | 2,890 | 2,970 | 2,500 | 3,000 | 2,500 | 4,550 | 7,430 | 4,420 | 2,400 | 1,880 | 1,990 | 2,550 |
| 23 | 3,970 | 2,790 | 2,500 | 2,900 | 2,500 | 4,170 | 7,000 | 4,490 | 2,770 | 1,930 | 1,840 | 2,490 |
| 24 | 4,380 | 2,770 | 2,500 | 2,900 | 2,400 | 4,340 | 5,410 | 4,260 | 2,280 | 1,970 | 1,930 | 2,430 |
| 25 | 3,910 | 2,800 | 2,400 | 2,800 | 2,400 | 4,500 | 4,890 | 6,140 | 2,450 | 2,430 | 2,050 | 2,310 |
| 26 | 4,190 | 2,800 | 2,400 | 2,800 | 2,400 | 4,490 | 4,450 | 8,910 | 2,180 | 1,810 | 2,190 | 2,490 |
| 27 | 4,080 | 2,700 | 2,400 | 2,700 | 2,500 | 4,350 | 4,930 | 8,470 | 2,370 | 2,070 | 2,110 | 2,790 |
| 28 | 4,450 | 2,700 | 2,400 | 2,600 | 2,500 | 4,430 | 3,720 | 7,770 | 2,280 | 2,010 | 1,890 | 2,640 |
| 29 | 4,170 | 2,800 | 2,400 | 2,500 | ------- | 3,970 | 3,370 | 6,760 | 2,380 | 2,080 | 2,020 | 2,510 |
| 30 | 3,210 | 2,670 | 2,500 | 2,500 | ------- | 3,800 | 3,160 | 5,920 | 2,290 | 2,010 | 2,080 | 2,290 |
| 31 | 3,110 | ------- | 2,500 | 2,400 | ------- | 3,310 | ------- | 4,970 | ------- | 2,210 | 3,350 | ------- |
| TOTAL | 127,430 | 137,440 | 82,350 | 83,000 | 70,100 | 182,050 | 167,550 | 263,030 | 95,250 | 62,329 | 65,290 | 79,500 |
| MEAN | 4,111 | 4,581 | 2,656 | 2,677 | 2,504 | 5,873 | 5,585 | 8,485 | 3,175 | 2,010 | 2,183 | 2,650 |
| MAX | 7,200 | 10,300 | 3,000 | 3,000 | 2,800 | 17,400 | 14,400 | 20,300 | 4,540 | 2,540 | 3,350 | 4,620 |
| MIN | 2,540 | 2,670 | 2,400 | 2,400 | 2,400 | 2,500 | 3,160 | 3,880 | 2,180 | 1,690 | 1,840 | 2,180 |

CAL YR 1972 TOTAL 1,153,480 MEAN 3,152 MAX 15,800 MIN 1,720
WTR YR 1973 TOTAL 1,415,220 MEAN 3,877 MAX 20,300 MIN 1,690

## 05397500 Eau Claire River at Kelly, Wis.

LOCATION.--Lat 44°55'06", long 89°33'00", on line between secs.9 and 10, T.28 N., R.8 E., Marathon County, on right bank 50 ft (15 m) downstream from County Highway SS bridge, 0.7 mi (1.1 km) northeast of Kelly, 1.3 mi (2.1 km) upstream from Big Sandy Creek, 4.5 mi (7.2 km) upstream from mouth, and 5.0 mi (8.0 km) southeast of Wausau.

DRAINAGE AREA.--326 $mi^2$ (844 $km^2$).

PERIOD OF RECORD.--January 1914 to November 1926, August 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,177.88 ft (359.018 m) above mean sea level. Prior to Sept. 17, 1953, nonrecording gage at same site at datum 1.00 ft (0.30 m) higher.

AVERAGE DISCHARGE.--46 years, 252 $ft^3/s$ (7.137 $m^3/s$), 10.50 in/yr (267 mm/yr).

EXTREMES.--Current year: Maximum daily discharge, 5,000 ft3/s (142 $m^3/s$) Mar. 11; maximum gage height, 10.28 ft (3.133 m) Mar. 8 backwater from ice; minimum discharge, 74 $ft^3/s$ (2.10 $m^3/s$) Nov. 23, gage height, 1.16 ft (0.353 m), result of freezeup.

Period of record: Maximum discharge, 8,300 $ft^3/s$ (235 $m^3/s$) Aug. 21, 1926, gage height, 8.4 ft (2.56 m) from graph based on gage readings, from rating curve extended above 6,000 $ft^3/s$ (170 $m^3/s$); minimum observed, 8 $ft^3/s$ (0.23 $m^3/s$) July 17, 1944, gage height, 0.17 ft (0.052 m), probably result of temporary regulation.

REMARKS.--Records good except those for winter months, which are fair.

REVISIONS (WATER YEARS).--WSP 1508: 1915, 1916-17(M), 1919-26(M), 1940(M), 1945(M), 1950(M).

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 24 to Mar. 12, Mar. 15-17.)

| | | | |
|---|---|---|---|
| 1.2 | 83 | 4.0 | 1,390 |
| 1.5 | 157 | 5.0 | 2,140 |
| 2.0 | 325 | 7.0 | 3,820 |
| 3.0 | 780 | 9.0 | 5,900 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,000 | 275 | 170 | 180 | 160 | 140 | 376 | 665 | 541 | 146 | 114 | 108 |
| 2 | 748 | 475 | 170 | 180 | 160 | 140 | 458 | 2,220 | 464 | 140 | 109 | 160 |
| 3 | 574 | 1,150 | 170 | 180 | 160 | 150 | 652 | 2,960 | 414 | 133 | 103 | 295 |
| 4 | 521 | 1,070 | 160 | 180 | 160 | 160 | 753 | 2,710 | 421 | 130 | 98 | 217 |
| 5 | 470 | 952 | 160 | 180 | 160 | 170 | 724 | 1,590 | 568 | 126 | 95 | 233 |
| 6 | 426 | 638 | 160 | 180 | 150 | 210 | 599 | 947 | 445 | 122 | 93 | 204 |
| 7 | 389 | 531 | 160 | 180 | 150 | 548 | 552 | 778 | 344 | 117 | 99 | 162 |
| 8 | 353 | 566 | 150 | 180 | 150 | 4,180 | 504 | 1,410 | 329 | 115 | 106 | 149 |
| 9 | 311 | 541 | 150 | 180 | 140 | 3,000 | 442 | 1,620 | 318 | 112 | 106 | 126 |
| 10 | 276 | 483 | 150 | 180 | 140 | 2,490 | 376 | 1,510 | 298 | 116 | 104 | 120 |
| 11 | 263 | 432 | 140 | 180 | 140 | 5,000 | 376 | 1,190 | 268 | 125 | 101 | 113 |
| 12 | 294 | 382 | 140 | 180 | 140 | 4,600 | 452 | 914 | 259 | 127 | 93 | 106 |
| 13 | 304 | 348 | 140 | 180 | 140 | 4,420 | 476 | 714 | 248 | 119 | 94 | 102 |
| 14 | 277 | 306 | 140 | 180 | 140 | 4,180 | 512 | 579 | 228 | 130 | 102 | 101 |
| 15 | 254 | 273 | 140 | 180 | 130 | 3,500 | 794 | 496 | 212 | 118 | 102 | 97 |
| 16 | 239 | 250 | 140 | 180 | 130 | 2,300 | 2,620 | 446 | 211 | 112 | 96 | 94 |
| 17 | 226 | 242 | 140 | 180 | 130 | 1,700 | 2,940 | 416 | 211 | 107 | 93 | 95 |
| 18 | 211 | 232 | 140 | 190 | 130 | 1,400 | 2,610 | 385 | 201 | 103 | 232 | 94 |
| 19 | 196 | 230 | 140 | 200 | 130 | 929 | 1,390 | 374 | 191 | 101 | 196 | 95 |
| 20 | 198 | 224 | 140 | 220 | 130 | 776 | 940 | 384 | 178 | 97 | 156 | 96 |
| 21 | 212 | 202 | 140 | 230 | 130 | 649 | 1,310 | 337 | 171 | 96 | 134 | 95 |
| 22 | 268 | 186 | 140 | 230 | 130 | 563 | 1,290 | 314 | 175 | 94 | 120 | 108 |
| 23 | 570 | 148 | 140 | 220 | 130 | 512 | 1,250 | 331 | 177 | 91 | 110 | 127 |
| 24 | 753 | 150 | 140 | 210 | 130 | 489 | 1,030 | 313 | 171 | 129 | 105 | 122 |
| 25 | 623 | 160 | 140 | 200 | 130 | 486 | 690 | 1,040 | 162 | 157 | 103 | 117 |
| 26 | 535 | 160 | 140 | 190 | 130 | 487 | 535 | 1,140 | 156 | 139 | 101 | 120 |
| 27 | 455 | 170 | 140 | 180 | 130 | 471 | 446 | 945 | 157 | 126 | 98 | 142 |
| 28 | 387 | 170 | 140 | 180 | 130 | 448 | 388 | 1,400 | 152 | 119 | 94 | 149 |
| 29 | 334 | 170 | 150 | 170 | ------ | 426 | 355 | 1,420 | 150 | 115 | 92 | 143 |
| 30 | 295 | 170 | 160 | 170 | ------ | 410 | 330 | 984 | 152 | 117 | 113 | 130 |
| 31 | 275 | ------ | 170 | 170 | ------ | 389 | ------ | 676 | ------ | 121 | 91 | ------ |
| TOTAL | 12,221 | 11,278 | 4,600 | 5,820 | 3,910 | 45,145 | 26,170 | 31,260 | 7,972 | 3,700 | 3,453 | 3,929 |
| MEAN | 394 | 376 | 148 | 188 | 140 | 1,456 | 872 | 1,008 | 266 | 119 | 111 | 131 |
| MAX | 1,000 | 2,150 | 170 | 230 | 160 | 5,000 | 2,940 | 2,960 | 568 | 157 | 232 | 233 |
| MIN | 196 | 148 | 140 | 170 | 130 | 140 | 330 | 313 | 150 | 91 | 91 | 94 |
| CFSM | 1.21 | 1.15 | .45 | .58 | .43 | 4.47 | 2.67 | 3.09 | .82 | .37 | .34 | .40 |
| IN. | 1.39 | 1.29 | .52 | .66 | .45 | 5.15 | 2.99 | 3.57 | .91 | .42 | .39 | .45 |

CAL YR 1972 TOTAL 127,906 MEAN 349 MAX 5,780 MIN 66 CFSM 1.07 IN 14.60
WTR YR 1973 TOTAL 159,450 MEAN 437 MAX 5,000 MIN 91 CFSM 1.34 IN 18.20

PEAK DISCHARGE (BASE, 1,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 3-11 | - | - | a5,000 | 5- 2 | 0200 | 6.15 | 3,100 |
| 4-16 | 2000 | 6.25 | 3,140 | 5- 9 | 0100 | 4.46 | 1,760 |
| | | | | 5-28 | 2100 | 4.74 | 1,960 |

a About.

## 05398000 Wisconsin River at Rothschild, Wis.

LOCATION.--Lat 44°53'09", long 89°38'05", in sec.26, T.28 N., R.7 E., Marathon County, on left bank at Rothschild, 0.5 mi (0.8 km) downstream from Rothschild Dam, 1.7 mi (2.7 km) north of bridge on U.S. Highway 51, 2.0 mi (3.2 km) downstream from Eau Claire River, and 5.0 mi (8.0 km) upstream from Black Creek.

DRAINAGE AREA.--4,000 $mi^2$ (10,360 $km^2$), approximately.

PERIOD OF RECORD.--October 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,135.86 ft (346.210 m) above mean sea level. Auxiliary water-stage recorder in Mosinee Pond 8 mi (12.9 km) downstream. Prior to July 23, 1964, nonrecording auxiliary gage at same site and datum, read hourly.

AVERAGE DISCHARGE.--29 years, 3,456 $ft^3/s$ (97.87 $m^3/s$).

EXTREMES.--Current year: Maximum discharge, 42,000 $ft^3/s$ (1,190 $m^3/s$) May 3, gage height, 16.98 ft (5.176 m); minimum daily, 1,930 $ft^3/s$ (54.7 $m^3/s$) July 17.

Period of record: Maximum discharge, 49,200 $ft^3/s$ (1,390 $m^3/s$) Apr. 12, 1965, Mar. 31, 1967, gage height, 18.46 ft (5.627 m); minimum daily, 680 $ft^3/s$ (19.3 $m^3/s$) Oct. 17, 1948.

Flood of Sept. 1, 1941, reached stage of 22.3 ft (6.80 m) from tailwater data at Rothschild Dam, discharge, 75,000 $ft^3/s$ (2,120 $m^3/s$) from rating curve extended above 45,000 $ft^3/s$ (1,270 $m^3/s$) by logarithmic plotting).

REMARKS.--Records good except those for winter months, or discharge below 1,500 $ft^3/s$ (42.5 $m^3/s$), which are fair. Flow regulated by 20 reservoirs (see p. 137) and 12 powerplants above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12,900 | 4,530 | 3,200 | 4,300 | 3,100 | 3,000 | 5,340 | 8,180 | 6,980 | 2,790 | 2,440 | 4,790 |
| 2 | 9,380 | 6,760 | 3,000 | 4,500 | 3,100 | 3,100 | 6,360 | 25,400 | 5,730 | 3,000 | 2,290 | 5,270 |
| 3 | 8,040 | 15,500 | 2,800 | 4,300 | 3,600 | 3,200 | 8,240 | 39,300 | 6,260 | 3,000 | 2,310 | 4,730 |
| 4 | 8,920 | 15,600 | 2,700 | 4,000 | 3,300 | 3,400 | 9,840 | 30,400 | 6,530 | 2,700 | 2,200 | 4,470 |
| 5 | 8,740 | 12,600 | 3,000 | 3,800 | 3,500 | 4,000 | 8,810 | 19,800 | 6,600 | 3,000 | 2,030 | 4,710 |
| 6 | 7,550 | 10,200 | 3,100 | 3,600 | 3,400 | 4,930 | 7,480 | 15,700 | 6,600 | 2,480 | 2,340 | 4,140 |
| 7 | 7,910 | 9,610 | 3,100 | 3,200 | 3,100 | 12,200 | 7,130 | 14,300 | 5,200 | 2,250 | 2,440 | 3,550 |
| 8 | 6,790 | 10,400 | 2,900 | 3,400 | 3,000 | 23,100 | 7,030 | 17,900 | 5,600 | 2,340 | 2,420 | 2,800 |
| 9 | 5,380 | 9,660 | 3,000 | 3,300 | 3,000 | 18,400 | 6,270 | 18,300 | 5,800 | 2,380 | 2,740 | 2,580 |
| 10 | 5,010 | 8,350 | 3,100 | 3,100 | 2,900 | 13,000 | 6,160 | 16,400 | 4,600 | 2,310 | 2,550 | 2,640 |
| 11 | 4,660 | 7,250 | 3,000 | 3,700 | 2,600 | 22,500 | 6,030 | 15,500 | 5,200 | 2,660 | 2,230 | 3,110 |
| 12 | 5,440 | 6,820 | 3,000 | 3,900 | 2,500 | 35,200 | 6,230 | 14,100 | 4,700 | 2,570 | 2,150 | 2,710 |
| 13 | 5,400 | 6,030 | 3,000 | 3,400 | 2,800 | 32,500 | 6,030 | 12,100 | 4,500 | 2,450 | 2,490 | 2,610 |
| 14 | 4,950 | 6,080 | 3,300 | 3,000 | 3,000 | 33,600 | 6,230 | 10,400 | 4,400 | 2,220 | 2,680 | 2,730 |
| 15 | 4,210 | 4,700 | 3,100 | 3,200 | 3,100 | 38,700 | 8,550 | 8,330 | 4,000 | 2,360 | 2,810 | 2,570 |
| 16 | 3,390 | 5,520 | 3,100 | 3,100 | 3,000 | 33,600 | 24,300 | 8,150 | 3,800 | 2,470 | 2,350 | 2,310 |
| 17 | 3,760 | 4,530 | 3,000 | 3,000 | 2,800 | 20,500 | 33,300 | 7,350 | 4,200 | 1,930 | 2,840 | 2,750 |
| 18 | 3,720 | 4,750 | 2,900 | 3,500 | 2,600 | 13,100 | 23,300 | 6,180 | 3,500 | 2,100 | 3,480 | 2,570 |
| 19 | 3,510 | 4,000 | 2,900 | 4,700 | 2,700 | 11,200 | 15,600 | 6,950 | 3,700 | 2,160 | 2,920 | 2,540 |
| 20 | 3,240 | 4,250 | 3,200 | 5,200 | 2,800 | 8,820 | 12,900 | 5,440 | 3,400 | 2,640 | 2,510 | 2,420 |
| 21 | 3,260 | 3,980 | 3,200 | 4,700 | 2,700 | 7,650 | 11,800 | 5,700 | 3,400 | 2,210 | 2,4[illegible]0 | 2,720 |
| 22 | 3,720 | 3,700 | 3,200 | 4,900 | 2,900 | 7,070 | 12,400 | 5,460 | 3,400 | 1,970 | 2,460 | 3,030 |
| 23 | 5,750 | 3,540 | 3,100 | 4,600 | 2,900 | 6,920 | 11,400 | 5,820 | 3,400 | 2,220 | 2,370 | 2,230 |
| 24 | 8,980 | 3,690 | 3,100 | 4,000 | 3,000 | 6,900 | 9,330 | 5,960 | 3,300 | 2,600 | 2,130 | 2,740 |
| 25 | 7,100 | 3,960 | 3,100 | 3,600 | 2,900 | 7,080 | 7,490 | 10,200 | 3,300 | 3,200 | 2,280 | 2,970 |
| 26 | 6,820 | 3,750 | 3,100 | 3,700 | 2,900 | 7,190 | 6,920 | 15,300 | 3,100 | 2,310 | 2,250 | 2,740 |
| 27 | 6,060 | 3,500 | 3,000 | 3,900 | 3,000 | 7,000 | 6,810 | 12,900 | 3,110 | 2,810 | 2,540 | 2,900 |
| 28 | 5,800 | 3,500 | 3,200 | 3,600 | 2,900 | 6,760 | 6,080 | 12,900 | 3,220 | 2,440 | 2,070 | 3,240 |
| 29 | 5,840 | 3,400 | 3,200 | 3,700 | ------ | 6,360 | 5,220 | 14,200 | 3,000 | 2,060 | 2,120 | 3,370 |
| 30 | 4,600 | 3,300 | 3,700 | 3,400 | ------ | 6,150 | 4,610 | 9,270 | 3,030 | 2,640 | 2,680 | 2,800 |
| 31 | 4,310 | ------ | 4,000 | 3,100 | ------ | 5,220 | ------ | 7,760 | ------ | 2,900 | 3,100 | ------ |
| TOTAL | 185,140 | 193,460 | 96,300 | 117,400 | 83,100 | 412,350 | 297,190 | 405,650 | 133,560 | 77,170 | 76,680 | 94,740 |
| MEAN | 5,972 | 6,449 | 3,106 | 3,787 | 2,968 | 13,300 | 9,906 | 13,090 | 4,452 | 2,489 | 2,474 | 3,158 |
| MAX | 12,900 | 15,600 | 4,000 | 5,200 | 3,600 | 38,700 | 33,300 | 39,300 | 6,980 | 3,200 | 3,480 | 5,270 |
| MIN | 3,240 | 3,300 | 2,700 | 3,000 | 2,500 | 3,000 | 4,610 | 5,440 | 3,000 | 1,930 | 2,030 | 2,230 |

CAL YR 1972 TOTAL 1,751,040 MEAN 4,784 MAX 40,000 MIN 1,780
WTR YR 1973 TOTAL 2,172,740 MEAN 5,953 MAX 39,300 MIN 1,930

## 05399500 Big Eau Pleine River near Stratford, Wis.

LOCATION.--Lat 44°49'19", long 90°04'46", on line between sec.13, T.27 N., R.3 E., and sec.18, T.27 N., R.4 E., Marathon County, on left bank 15 ft (4.6 m) upstream from bridge on State Highway 97, 1.0 mi (1.6 km) north of Stratford, and 1.4 mi (2.2 km) downstream from small tributary.

DRAINAGE AREA.--224 $mi^2$ (580 $km^2$).

PERIOD OF RECORD.--July 1914 to December 1925, April 1937 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 1,154.24 ft (351.812 m) above mean sea level. July 24, 1914, to Dec. 31, 1925, nonrecording gage at site 0.5 mi (0.8 km) upstream at different datum. Apr. 30, 1937, to Sept. 15, 1938, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--47 years (1914-25, 1937-73), 174 $ft^3/s$ (4.928 $m^3/s$), 10.55 in/yr (268 mm/yr).

EXTREMES.--Current year: Maximum discharge, 8,840 $ft^3/s$ (250 $m^3/s$) May 2, gage height, 15.62 ft (4.761 m); maximum gage height, 16.41 ft (5.00 m) Mar. 11, backwater from ice; minimum discharge, 3.3 $ft^3/s$ (0.093 $m^3/s$) Aug. 26, 27, gage height, 2.41 ft (0.735 m).

Period of record: Maximum discharge, 41,000 $ft^3/s$ (1,160 $m^3/s$) Sept. 9, 1938, gage height, 24.5 ft (7.47 m), from floodmarks, based on rating curve extended above 24,000 $ft^3/s$ (680 $m^3/s$); no flow Aug. 17, 1947, Jan. 22 to Feb. 5, 1961.

Flood of June 5, 1914, reached a stage of 20.7 ft (6.31 m), from floodmarks, discharge, 40,000 $ft^3/s$ 1,130 $m^3/s$), former site and datum.

REMARKS.--Records good except those for winter months, which are fair.

REVISIONS (WATER YEARS).--WSP 1308: 1917, 1920-22, 1926, 1946, 1948, 1950. WSP 1508: 1915-25(M), 1937, 1946(M), 1948(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Rate of change in stage used as factor Nov. 2, 3, Apr. 15-17, May 1-3, 25, 26, 28, 29; stage-discharge relation affected by ice Nov. 21, 22, Nov. 26 to Mar. 26.)

| | | | | | |
|---|---|---|---|---|---|
| 2.4 | 3.5 | 4.0 | 175 | 10.0 | 2,690 |
| 2.6 | 12 | 5.0 | 410 | 12.0 | 4,400 |
| 3.0 | 38 | 6.0 | 690 | 14.0 | 6,540 |
| 3.5 | 88 | 8.0 | 1,500 | 16.0 | 9,450 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 280 | 79 | 28 | 250 | 76 | 28 | 190 | 2,610 | 190 | 13 | 13 | 4.5 |
| 2 | 230 | 1,940 | 26 | 220 | 72 | 32 | 506 | 5,980 | 138 | 22 | 22 | 4.8 |
| 3 | 202 | 2,280 | 25 | 190 | 68 | 70 | 1,500 | 2,340 | 113 | 26 | 22 | 14 |
| 4 | 416 | 817 | 25 | 170 | 62 | 200 | 1,330 | 757 | 112 | 26 | 16 | 55 |
| 5 | 327 | 429 | 25 | 150 | 58 | 780 | 716 | 382 | 129 | 16 | 10 | 68 |
| 6 | 316 | 305 | 26 | 130 | 54 | 500 | 427 | 256 | 133 | 12 | 8.6 | 31 |
| 7 | 332 | 542 | 26 | 120 | 52 | 3,300 | 622 | 492 | 86 | 10 | 8.6 | 19 |
| 8 | 196 | 649 | 26 | 110 | 50 | 2,600 | 422 | 1,490 | 62 | 9.1 | 27 | 14 |
| 9 | 129 | 362 | 26 | 110 | 48 | 1,900 | 249 | 678 | 52 | 8.0 | 48 | 12 |
| 10 | 91 | 252 | 27 | 100 | 46 | 1,200 | 167 | 676 | 44 | 7.1 | 48 | 9.7 |
| 11 | 105 | 200 | 26 | 92 | 43 | 4,000 | 179 | 500 | 37 | 6.5 | 27 | 7.6 |
| 12 | 216 | 157 | 27 | 88 | 42 | 3,000 | 290 | 375 | 48 | 5.9 | 18 | 6.5 |
| 13 | 139 | 120 | 27 | 82 | 40 | 2,300 | 685 | 260 | 45 | 5.5 | 15 | 6.0 |
| 14 | 98 | 91 | 26 | 80 | 38 | 3,800 | 1,240 | 170 | 36 | 5.1 | 13 | 5.7 |
| 15 | 73 | 71 | 26 | 78 | 37 | 1,600 | 2,750 | 119 | 29 | 4.8 | 21 | 5.3 |
| 16 | 60 | 62 | 25 | 76 | 35 | 920 | 6,800 | 93 | 26 | 5.0 | 25 | 5.1 |
| 17 | 52 | 56 | 25 | 78 | 34 | 640 | 2,090 | 74 | 44 | 4.6 | 16 | 4.7 |
| 18 | 45 | 52 | 24 | 90 | 33 | 540 | 732 | 62 | 185 | 4.6 | 11 | 4.6 |
| 19 | 40 | 49 | 24 | 160 | 32 | 420 | 389 | 56 | 77 | 4.9 | 9.2 | 4.6 |
| 20 | 38 | 43 | 24 | 300 | 31 | 330 | 276 | 50 | 47 | 5.2 | 7.5 | 4.4 |
| 21 | 47 | 38 | 24 | 250 | 30 | 290 | 240 | 46 | 33 | 4.8 | 6.3 | 4.5 |
| 22 | 66 | 36 | 24 | 210 | 29 | 250 | 310 | 95 | 28 | 4.9 | 5.9 | 4.5 |
| 23 | 1,310 | 34 | 24 | 180 | 28 | 220 | 183 | 113 | 24 | 4.7 | 6.2 | 5.2 |
| 24 | 1,330 | 34 | 24 | 160 | 27 | 200 | 129 | 230 | 21 | 6.8 | 6.3 | 4.9 |
| 25 | 548 | 33 | 24 | 150 | 27 | 210 | 100 | 5,520 | 18 | 8.4 | 6.3 | 6.4 |
| 26 | 321 | 35 | 24 | 140 | 27 | 220 | 80 | 1,780 | 16 | 8.9 | 6.9 | 6.9 |
| 27 | 222 | 37 | 25 | 120 | 27 | 218 | 67 | 708 | 15 | 12 | 5.1 | 7.3 |
| 28 | 154 | 34 | 26 | 110 | 27 | 189 | 58 | 3,430 | 14 | 14 | 5.5 | 6.1 |
| 29 | 112 | 32 | 29 | 100 | ------ | 175 | 51 | 1,350 | 14 | 12 | 4.9 | 14 |
| 30 | 85 | 30 | 35 | 90 | ------ | 178 | 49 | 521 | 14 | 11 | 5.1 | 14 |
| 31 | 77 | ------ | 130 | 82 | ------ | 161 | ------ | 282 | ------ | 13 | 5.5 | ------ |
| TOTAL | 7,657 | 8,899 | 903 | 4,266 | 1,173 | 30,471 | 22,827 | 31,495 | 1,830 | 301.8 | 449.9 | 360.3 |
| MEAN | 247 | 297 | 29.1 | 138 | 41.9 | 983 | 761 | 1,016 | 61.0 | 9.74 | 14.5 | 12.0 |
| MAX | 1,320 | 2,280 | 130 | 300 | 76 | 4,000 | 6,800 | 5,980 | 190 | 26 | 48 | 68 |
| MIN | 38 | 30 | 24 | 76 | 27 | 28 | 49 | 46 | 14 | 4.6 | 4.9 | 4.4 |
| CFSM | 1.10 | 1.33 | .13 | .62 | .19 | 4.39 | 3.40 | 4.54 | .27 | .04 | .06 | .05 |
| IN. | 1.27 | 1.48 | .15 | .71 | .19 | 5.06 | 3.79 | 5.23 | .30 | .05 | .07 | .06 |

CAL YR 1972 TOTAL 92,193.2 MEAN 252 MAX 9,300 MIN 4.9 CFSM 1.13 IN 15.31
WTR YR 1973 TOTAL 110,633.0 MEAN 303 MAX 6,800 MIN 4.4 CFSM 1.35 IN 18.37

PEAK DISCHARGE (BASE, 2,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 11- 2 | 2400 | 11.90 | 4,230 | 5- 2 | 1330 | 15.62 | 8,840 |
| 3-11 | - | - | a5,600 | 5-25 | 0600 | 14.98 | 7,870 |
| 4-16 | 1200 | 15.26 | 8,280 | | | | |

a About.

## 05400600 Little Plover River near Arnott, Wis.

LOCATION.--Lat 44°28'05", long 89°29'20", in NE¼ sec.24, T.23 N., R.8 E., Portage County, 150 ft (46 m) below bridge on town road 2.2 mi (3.6 km) northwest of Arnott and 3.5 mi (5.6 km) upstream from mouth.

DRAINAGE AREA.--1.5 mi² (3.89 km²), approximately, of which a portion is noncontributing.

PERIOD OF RECORD.--July 1959 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 1,087.37 ft (331.430 m) above mean sea level (levels by Wisconsin Department of Natural Resources). Prior to April 1960, nonrecording gage at same site and datum 0.26 ft (0.08 m) higher.

AVERAGE DISCHARGE.--14 years, 3.84 ft³/s (0.109 m³/s).

EXTREMES.--Current year: Maximum discharge, 72 ft³/s (2.04 m³/s) Mar. 7, gage height, 3.25 ft (0.991 m); minimum, 3.5 ft³/s (0.099 m³/s) Feb. 25, gage height, 0.91 ft (0.277 m).

Period of record: Maximum discharge, 72 ft³/s (2.04 m³/s) Mar. 7, 1973, gage height, 3.25 ft (0.991 m); minimum, 0.8 ft³/s (0.023 m³/s) for many days in July, August, and September 1959.

REMARKS.--Records good.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used May 9 to July 6, Aug. 16 to Sept. 30.)

| | | | |
|---|---|---|---|
| 1.0 | 4.0 | 2.0 | 19 |
| 1.3 | 6.0 | 2.8 | 51 |
| 1.6 | 8.4 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7.9 | 6.7 | 5.8 | 7.4 | 5.7 | 5.2 | 8.7 | 17 | 9.9 | 9.3 | 9.7 | 7.3 |
| 2 | 7.8 | 11 | 5.7 | 6.6 | 6.0 | 5.7 | 9.2 | 28 | 9.1 | 9.2 | 8.3 | 7.2 |
| 3 | 6.8 | 9.9 | 5.6 | 6.5 | 5.6 | 12 | 9.2 | 15 | 10 | 8.9 | 8.1 | 8.9 |
| 4 | 6.6 | 7.5 | 5.6 | 6.3 | 5.5 | 8.0 | 10 | 12 | 10 | 8.9 | 8.1 | 8.7 |
| 5 | 6.5 | 6.9 | 5.7 | 5.8 | 5.3 | 6.2 | 8.4 | 11 | 20 | 8.9 | 7.9 | 7.9 |
| 6 | 6.8 | 6.9 | 5.7 | 5.7 | 5.3 | 10 | 11 | 11 | 9.8 | 9.8 | 8.1 | 7.7 |
| 7 | 6.5 | 7.7 | 5.7 | 5.5 | 5.2 | 50 | 14 | 21 | 9.7 | 9.8 | 8.8 | 7.8 |
| 8 | 6.3 | 7.2 | 5.7 | 5.5 | 5.0 | 18 | 11 | 20 | 8.9 | 8.9 | 11 | 7.9 |
| 9 | 5.9 | 6.9 | 5.7 | 5.6 | 5.0 | 13 | 8.6 | 15 | 8.8 | 9.3 | 9.7 | 7.4 |
| 10 | 5.8 | 6.9 | 5.7 | 5.6 | 4.7 | 14 | 9.9 | 14 | 8.4 | 9.5 | 8.6 | 7.9 |
| 11 | 5.9 | 6.7 | 5.7 | 5.6 | 4.8 | 32 | 11 | 12 | 10 | 9.0 | 8.3 | 7.2 |
| 12 | 5.7 | 6.5 | 5.7 | 5.5 | 4.8 | 20 | 11 | 11 | 20 | 9.1 | 8.0 | 7.0 |
| 13 | 5.8 | 6.3 | 5.7 | 5.4 | 4.9 | 16 | 12 | 10 | 11 | 9.3 | 8.0 | 7.0 |
| 14 | 5.6 | 6.3 | 5.5 | 5.4 | 5.0 | 27 | 13 | 9.6 | 9.9 | 9.6 | 8.0 | 7.0 |
| 15 | 5.5 | 6.1 | 5.4 | 5.3 | 4.9 | 17 | 20 | 9.4 | 9.6 | 8.3 | 7.9 | 7.0 |
| 16 | 5.8 | 6.1 | 5.4 | 5.5 | 4.8 | 14 | 32 | 9.9 | 9.8 | 8.6 | 8.1 | 7.3 |
| 17 | 5.4 | 6.2 | 5.4 | 5.7 | 4.8 | 13 | 17 | 9.2 | 10 | 8.4 | 8.0 | 7.1 |
| 18 | 5.3 | 6.0 | 5.6 | 11 | 5.0 | 12 | 13 | 9.5 | 9.4 | 8.4 | 8.3 | 7.0 |
| 19 | 5.2 | 6.0 | 5.6 | 11 | 5.0 | 11 | 13 | 10 | 9.3 | 8.6 | 8.3 | 7.1 |
| 20 | 5.3 | 6.0 | 5.6 | 7.3 | 4.9 | 11 | 14 | 9.8 | 9.5 | 8.2 | 7.6 | 6.7 |
| 21 | 6.2 | 6.0 | 5.5 | 6.6 | 4.9 | 10 | 15 | 9.4 | 9.0 | 7.9 | 7.5 | 7.4 |
| 22 | 7.0 | 5.9 | 5.5 | 6.6 | 5.1 | 10 | 13 | 12 | 9.2 | 7.8 | 7.7 | 8.0 |
| 23 | 13 | 5.9 | 5.5 | 6.2 | 5.0 | 10 | 11 | 11 | 9.2 | 7.9 | 8.2 | 7.5 |
| 24 | 9.2 | 6.0 | 5.3 | 5.9 | 4.8 | 10 | 10 | 11 | 9.5 | 14 | 8.0 | 7.3 |
| 25 | 8.2 | 6.2 | 5.5 | 5.7 | 4.9 | 10 | 10 | 18 | 9.8 | 14 | 7.7 | 8.0 |
| 26 | 7.2 | 6.4 | 5.4 | 5.8 | 4.7 | 10 | 9.2 | 11 | 9.2 | 9.9 | 7.9 | 7.3 |
| 27 | 6.9 | 6.1 | 5.4 | 5.8 | 4.8 | 10 | 9.5 | 11 | 9.3 | 9.9 | 7.2 | 7.3 |
| 28 | 6.7 | 5.7 | 5.3 | 5.6 | 5.0 | 10 | 8.6 | 34 | 9.6 | 9.9 | 7.3 | 7.1 |
| 29 | 6.4 | 5.6 | 5.7 | 5.4 | ------ | 10 | 9.4 | 14 | 9.7 | 9.4 | 7.2 | 7.1 |
| 30 | 6.3 | 5.8 | 9.2 | 5.5 | ------ | 9.8 | 9.1 | 10 | 9.4 | 12 | 7.1 | 6.9 |
| 31 | 6.7 | ------ | 9.0 | 5.3 | ------ | 8.3 | ------ | 9.6 | ------ | 11 | 7.5 | ------ |
| TOTAL | 205.4 | 199.4 | 179.8 | 192.6 | 141.4 | 423.2 | 360.8 | 415.4 | 315.0 | 292.1 | 252.1 | 223.8 |
| MEAN | 6.63 | 6.65 | 5.80 | 6.21 | 5.05 | 13.7 | 12.0 | 13.4 | 10.5 | 9.42 | 8.13 | 7.46 |
| MAX | 13 | 11 | 9.2 | 11 | 6.0 | 50 | 32 | 34 | 20 | 14 | 11 | 8.9 |
| MIN | 5.2 | 5.6 | 5.3 | 5.3 | 4.7 | 5.2 | 8.4 | 9.2 | 8.4 | 7.8 | 7.1 | 6.7 |

CAL YR 1972 TOTAL 1,825.7 MEAN 4.99 MAX 20 MIN 2.5
WTR YR 1973 TOTAL 3,201.0 MEAN 8.77 MAX 50 MIN 4.7

## WISCONSIN RIVER BASIN

### 05400650 Little Plover River at Plover, Wis.

LOCATION.--Lat 44°28'26", long 89°31'44", in SW¼ sec.14, T.23 N., R.8 E., Portage County, on right bank at bridge on town road, 1.0 mi (1.6 km) northeast of Plover and 1.2 mi (1.9 km) upstream from mouth.

DRAINAGE AREA.--15 $mi^2$ (39 $km^2$), approximately, of which a large portion is noncontributing.

PERIOD OF RECORD.--July 1959 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 1,068.34 ft (325.630 m) above mean sea level (levels by Wisconsin Department of Natural Resources). Prior to May 1960, nonrecording gage at same site and datum 0.88 ft (0.268 m) lower.

AVERAGE DISCHARGE.--14 years, 10.57 $ft^3/s$ (0.299 $m^3/s$).

EXTREMES.--Current year: Maximum discharge, about 99 $ft^3/s$ (2.80 $m^3/s$) Mar. 7; minimum, 9.0 $ft^3/s$ (0.26 $m^3/s$) Feb. 15, gage height, 0.93 ft (0.283 m).

Period of record: Maximum discharge, about 99 $ft^3/s$ (2.80 $m^3/s$) Mar. 7, 1973; minimum, 2.4 $ft^3/s$ (0.068 $m^3/s$) May 23, 1965, gage height, 0.41 ft (0.125 m), result of temporary dam at flume entrance; minimum daily, 4.3 $ft^3/s$ (0.12 $m^3/s$) Aug. 19, 20, 1959.

REMARKS.--Records good except those for period of no gage-height record, which are fair.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used June 5 to July 18, Aug. 18 to Sept. 4, Sept. 16-30.)

| | | | |
|---|---|---|---|
| 1.0 | 10 | 2.0 | 29 |
| 1.5 | 19 | 2.5 | 44 |
| | | 3.0 | 84 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20 | 15 | 14 | 16 | 13 | 12 | 19 | 29 | 24 | 20 | 18 | 16 |
| 2 | 18 | 18 | 14 | 15 | 14 | 14 | 20 | 49 | 22 | 20 | 16 | 15 |
| 3 | 17 | 18 | 14 | 15 | 13 | 22 | 20 | 31 | 24 | 19 | 15 | 17 |
| 4 | 17 | 16 | 14 | 15 | 13 | 16 | 20 | 26 | 35 | 19 | 15 | 18 |
| 5 | 16 | 16 | 14 | 14 | 13 | 14 | 19 | 25 | 52 | 19 | 15 | 16 |
| 6 | 16 | 15 | 14 | 14 | 13 | 15 | 20 | 25 | 29 | 19 | 15 | 15 |
| 7 | 16 | 16 | 14 | 14 | 12 | 81 | 25 | 38 | 26 | 19 | 16 | 15 |
| 8 | 16 | 16 | 14 | 14 | 12 | 44 | 21 | 46 | 24 | 18 | 17 | 15 |
| 9 | 16 | 15 | 13 | 14 | 12 | 23 | 20 | 38 | 23 | 18 | 20 | 15 |
| 10 | 15 | 15 | 13 | 14 | 12 | 21 | 20 | 34 | 22 | 19 | 18 | 15 |
| 11 | 15 | 15 | 13 | 14 | 12 | 52 | 21 | 29 | 21 | 18 | 17 | 15 |
| 12 | 14 | 15 | 13 | 14 | 12 | 40 | 22 | 27 | 46 | 18 | 16 | 15 |
| 13 | 14 | 15 | 13 | 13 | 12 | 30 | 21 | 26 | 35 | 18 | 16 | 15 |
| 14 | 14 | 15 | 13 | 13 | 12 | 48 | 22 | 25 | 26 | 18 | 16 | 15 |
| 15 | 14 | 14 | 13 | 13 | 11 | 32 | 29 | 24 | 23 | 18 | 16 | 15 |
| 16 | 15 | 14 | 13 | 13 | 11 | 27 | 52 | 24 | 23 | 18 | 16 | 15 |
| 17 | 14 | 14 | 13 | 14 | 12 | 25 | 33 | 23 | 23 | 18 | 16 | 16 |
| 18 | 14 | 14 | 13 | 18 | 12 | 23 | 26 | 23 | 22 | 17 | 16 | 15 |
| 19 | 14 | 14 | 13 | 21 | 12 | 22 | 25 | 23 | 22 | 16 | 16 | 15 |
| 20 | 14 | 14 | 13 | 17 | 12 | 22 | 27 | 23 | 22 | 16 | 15 | 15 |
| 21 | 15 | 14 | 13 | 16 | 12 | 21 | 28 | 23 | 22 | 16 | 15 | 16 |
| 22 | 16 | 14 | 13 | 15 | 12 | 20 | 26 | 24 | 21 | 15 | 15 | 19 |
| 23 | 20 | 14 | 13 | 15 | 12 | 20 | 24 | 23 | 21 | 15 | 16 | 17 |
| 24 | 18 | 14 | 13 | 14 | 12 | 20 | 22 | 27 | 21 | 19 | 16 | 14 |
| 25 | 17 | 14 | 13 | 14 | 12 | 20 | 22 | 38 | 21 | 22 | 16 | 15 |
| 26 | 16 | 14 | 13 | 14 | 12 | 19 | 21 | 28 | 21 | 19 | 16 | 14 |
| 27 | 16 | 14 | 13 | 14 | 12 | 19 | 21 | 29 | 21 | 18 | 15 | 14 |
| 28 | 16 | 14 | 13 | 13 | 12 | 19 | 21 | 66 | 21 | 18 | 16 | 14 |
| 29 | 15 | 14 | 14 | 14 | ------ | 19 | 20 | 35 | 21 | 17 | 15 | 14 |
| 30 | 15 | 14 | 16 | 13 | ------ | 18 | 21 | 26 | 21 | 19 | 16 | 14 |
| 31 | 15 | ------ | 18 | 13 | ------ | 18 | ------ | 23 | ------ | 21 | 15 | ------ |
| TOTAL | 480 | 444 | 420 | 450 | 341 | 796 | 708 | 930 | 755 | 564 | 496 | 459 |
| MEAN | 15.7 | 14.8 | 13.5 | 14.5 | 12.2 | 25.7 | 23.6 | 30.0 | 25.2 | 18.2 | 16.0 | 15.3 |
| MAX | 20 | 18 | 18 | 21 | 14 | 81 | 52 | 66 | 52 | 22 | 20 | 19 |
| MIN | 14 | 14 | 13 | 13 | 11 | 12 | 19 | 23 | 21 | 15 | 15 | 14 |

CAL YR 1972 TOTAL 4,486.6 MEAN 12.3 MAX 60 MIN 7.5
WTR YR 1973 TOTAL 6,851.0 MEAN 18.8 MAX 81 MIN 11

PEAK DISCHARGE (BASE, 22 $FT^3/S$)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 3- 7 | - | - | a99 | 5- 7 | 2100 | 2.53 | 55 |
| 5-14 | - | - | a65 | 5-28 | - | - | a69 |
| 4-16 | 1700 | 2.54 | 55 | 6- 5 | 0400 | 2.68 | 70 |
| 5- 2 | 1400 | 2.58 | 58 | 6-12 | - | - | a66 |

a About.

NOTE.--No gage-height record Dec. 3 to Jan. 28, Mar. 7, 8.

## 05400800 Wisconsin River at Wisconsin Rapids, Wis.

LOCATION.--Lat 44°22'05", long 89°51'30", in SW¼ sec.24, T.22 N., R.5 E., Wood County, at Centralia powerplant of Nekoosa-Edwards Paper, Inc., 1.6 mi (2.6 km) downstream from Chicago and Northwestern Railway bridge in Wisconsin Rapids.

DRAINAGE AREA.--5,400 mi² (14,000 km²), approximately.

PERIOD OF RECORD.--May 1914 to March 1950 (published as "near Nekoosa"), October 1957 to current year.

GAGE.--Water-stage recorders on headwater and tailwater. Elevation of powerplant pond is 980 ft (299 m) and datum of powerplant gages is 887.83 ft (270.611 m) above mean sea level (levels by Wisconsin Valley Improvement Co.). May 1914 to March 1950, at site 7.0 mi (11.3 km) downstream at different datum.

AVERAGE DISCHARGE.--51 years (1914-50, 1957-73), 4,976 ft³/s (140.9 m³/s).

EXTREMES.--Current year: Maximum discharge, 52,600 ft³/s (1,490 m³/s) Mar. 15; minimum daily, 2.100 ft³/s (59.5 m³/s) July 4.

Period of record: Maximum discharge, 70,400 ft³/s (1,990 m³/s) Sept. 12, 1938, gage height, 19.10 ft (5.822 m), from rating curve extended above 58,000 ft³/s (1,640 m³/s); minimum, 26 ft³/s (0.74 m³/s) Sept. 7, 1942; minimum daily, 165 ft³/s (4.67 m³/s) Aug. 12, 1934.

REMARKS.--Records good. Discharge computed from powerplant records on basis of load-discharge rating of hydroelectric units as developed by Geological Survey and tainter-gate ratings and spillway ratings based on theoretical formulas and discharge measurements. Flow regulated by 21 reservoirs (see p. 137) and many powerplants above station. Water diverted periodically from pond of Wisconsin Rapids powerplant 2.6 mi (4.2 km) upstream into Cranberry Creek, a tributary of Yellow River, for cranberry culture. Probably most of the water diverted is losted by evaporation and transpiration. These diversions in cubic feet per second, for water year October 1972 to September 1973, were as follows:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 13 | 100 | July 18 | 71 | Aug. 31 | 100 | Sept. 11 | 100 | Sept. 21 | 100 |
| Oct. 14 | 100 | July 19 | 100 | Sept. 1 | 100 | Sept. 12 | 100 | Sept. 22 | 100 |
| Oct. 15 | 100 | July 20 | 100 | Sept. 2 | 50 | Sept. 13 | 100 | Sept. 23 | 100 |
| Oct. 16 | 100 | July 21 | 100 | Sept. 4 | 100 | Sept. 14 | 100 | Sept. 24 | 100 |
| Oct. 17 | 4 | July 22 | 100 | Sept. 5 | 100 | Sept. 15 | 100 | Sept. 25 | 100 |
| Oct. 19 | 94 | July 23 | 100 | Sept. 6 | 100 | Sept. 16 | 100 | Sept. 26 | 100 |
| Oct. 20 | 100 | July 24 | 100 | Sept. 7 | 100 | Sept. 17 | 100 | Sept. 27 | 100 |
| Oct. 21 | 100 | July 25 | 21 | Sept. 8 | 100 | Sept. 18 | 100 | Sept. 28 | 100 |
| Oct. 22 | 31 | Aug. 30 | 100 | Sept. 9 | 100 | Sept. 19 | 100 | Sept. 29 | 100 |
| | | | | Sept.10 | 100 | Sept. 20 | 100 | Sept. 30 | 100 |

REVISIONS (WATER YEARS).--WSP 1308 1915 (M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20,100 | 8,740 | 4,530 | 5,330 | 5,220 | 4,560 | 6,590 | 10,700 | 11,700 | 3,400 | 3,360 | 3,820 |
| 2 | 16,700 | 9,800 | 4,550 | 6,240 | 5,240 | 4,470 | 7,630 | 30,700 | 7,980 | 3,940 | 3,280 | 4,410 |
| 3 | 14,080 | 19,600 | 3,850 | 6,590 | 5,000 | 4,860 | 11,300 | 46,800 | 8,030 | 2,420 | 3,400 | 5,370 |
| 4 | 12,500 | 22,000 | 3,840 | 6,710 | 4,680 | 5,390 | 15,500 | 46,200 | 10,000 | 2,100 | 3,370 | 5,790 |
| 5 | 13,200 | 18,100 | 3,640 | 6,880 | 4,860 | 6,460 | 13,300 | 41,100 | 9,980 | 3,810 | 2,800 | 4,990 |
| 6 | 11,900 | 15,100 | 3,780 | 6,160 | 4,990 | 8,780 | 11,000 | 25,600 | 9,770 | 3,660 | 3,240 | 4,580 |
| 7 | 9,760 | 14,800 | 3,910 | 4,670 | 5,030 | 19,200 | 10,900 | 24,200 | 9,630 | 3,500 | 3,300 | 4,320 |
| 8 | 9,070 | 14,300 | 4,060 | 4,850 | 5,040 | 30,400 | 12,700 | 25,500 | 8,760 | 3,370 | 3,360 | 3,710 |
| 9 | 7,780 | 12,900 | 4,070 | 4,820 | 4,840 | 32,900 | 12,200 | 24,200 | 5,300 | 3,730 | 3,340 | 3,000 |
| 10 | 6,010 | 12,900 | 3,060 | 4,760 | 4,600 | 27,800 | 9,970 | 25,200 | 5,310 | 3,880 | 3,200 | 3,380 |
| 11 | 5,600 | 10,300 | 4,110 | 5,060 | 4,450 | 28,800 | 8,060 | 22,900 | 6,080 | 3,840 | 2,990 | 3,270 |
| 12 | 5,680 | 9,470 | 4,350 | 4,670 | 4,580 | 43,600 | 7,040 | 20,800 | 6,650 | 3,900 | 2,820 | 3,350 |
| 13 | 6,190 | 7,960 | 4,360 | 4,540 | 4,560 | 44,000 | 9,160 | 17,000 | 6,840 | 3,950 | 2,980 | 3,830 |
| 14 | 6,140 | 7,790 | 4,250 | 4,390 | 4,540 | 48,200 | 10,200 | 13,400 | 6,270 | 3,920 | 3,160 | 3,140 |
| 15 | 5,020 | 8,660 | 4,270 | 4,720 | 4,520 | 51,300 | 15,000 | 11,500 | 5,500 | 2,930 | 3,320 | 3,020 |
| 16 | 4,900 | 8,610 | 4,210 | 4,900 | 4,610 | 46,600 | 33,900 | 11,300 | 5,490 | 3,410 | 3,230 | 2,860 |
| 17 | 4,360 | 8,070 | 4,090 | 5,280 | 4,400 | 35,400 | 46,400 | 9,830 | 4,860 | 3,390 | 3,270 | 3,360 |
| 18 | 4,140 | 8,950 | 4,170 | 5,340 | 4,570 | 22,600 | 37,900 | 7,700 | 4,790 | 3,330 | 3,470 | 2,800 |
| 19 | 4,520 | 5,390 | 4,350 | 5,620 | 4,600 | 17,300 | 28,700 | 7,360 | 4,500 | 3,280 | 3,640 | 2,700 |
| 20 | 4,330 | 5,000 | 4,450 | 6,200 | 4,600 | 12,800 | 23,100 | 7,420 | 4,210 | 2,810 | 3,670 | 2,700 |
| 21 | 4,190 | 4,930 | 4,500 | 6,960 | 4,490 | 11,300 | 19,100 | 6,310 | 4,820 | 2,580 | 3,500 | 2,700 |
| 22 | 4,930 | 6,500 | 4,500 | 7,950 | 4,570 | 11,400 | 17,400 | 6,410 | 3,900 | 2,550 | 3,060 | 2,790 |
| 23 | 9,160 | 6,240 | 4,390 | 7,350 | 4,620 | 9,650 | 17,900 | 8,040 | 3,890 | 2,600 | 3,010 | 3,380 |
| 24 | 13,700 | 6,560 | 3,580 | 6,590 | 4,530 | 8,260 | 14,700 | 7,620 | 3,930 | 2,830 | 3,000 | 2,990 |
| 25 | 14,600 | 6,750 | 3,440 | 5,250 | 4,540 | 8,060 | 9,250 | 10,700 | 3,830 | 3,660 | 3,000 | 3,000 |
| 26 | 10,800 | 6,200 | 4,440 | 5,480 | 4,540 | 9,210 | 7,540 | 23,400 | 3,920 | 3,340 | 2,970 | 3,600 |
| 27 | 8,960 | 6,650 | 4,530 | 5,220 | 4,480 | 9,060 | 8,480 | 22,300 | 4,010 | 3,290 | 3,280 | 3,920 |
| 28 | 8,000 | 6,680 | 4,490 | 5,140 | 4,540 | 9,060 | 8,260 | 23,900 | 3,970 | 3,660 | 3,370 | 3,930 |
| 29 | 7,900 | 6,200 | 4,590 | 5,150 | ------ | 9,020 | 6,710 | 25,500 | 3,830 | 3,680 | 3,310 | 3,940 |
| 30 | 7,150 | 6,160 | 5,160 | 5,300 | ------ | 7,220 | 6,160 | 20,000 | 3,780 | 3,480 | 3,250 | 3,120 |
| 31 | 6,440 | ------ | 5,200 | 5,150 | ------ | 6,240 | ------ | 15,700 | ------ | 3,350 | 3,200 | ------ |
| TOTAL | 267,870 | 259,110 | 130,720 | 173,270 | 131,240 | 594,700 | 446,050 | 606,000 | 180,730 | 103,610 | 100,230 | 107,540 |
| MEAN | 8,641 | 8,637 | 4,217 | 5,589 | 4,687 | 19,180 | 14,870 | 19,500 | 6,024 | 3,342 | 3,233 | 3,585 |
| MAX | 20,100 | 22,000 | 5,200 | 7,950 | 5,240 | 51,300 | 46,400 | 46,000 | 11,700 | 3,960 | 3,670 | 5,790 |
| MIN | 4,140 | 6,160 | 3,060 | 4,390 | 4,480 | 4,470 | 6,160 | 6,310 | 3,780 | 2,100 | 2,800 | 2,700 |

CAL YR 1972 TOTAL 2,346,800 MEAN 6,412 MAX 44,100 MIN 1,000
WTR YR 1973 TOTAL 3,101,960 MEAN 8,499 MAX 51,300 MIN 2,100

## 05401020 Tenmile Creek ditch 5 near Bancroft, Wis.

LOCATION.--Lat 44°18'08", long 89°32'59", in NE¼ sec.16, T.21 N., R.8 E., Portage County, at bridge on country road, 1.2 mi (1.9 km) west of U.S. Highway 51 and 1.8 mi (2.9 km) southwest of Bancroft.

DRAINAGE AREA.--8.8 mi² (22.8 km²), approximately.

PERIOD OF RECORD.--June 1964 to September 1973 (discontinued).

GAGE.--Water-stage recorder and 90° V-notch sharp-crested weir in one bay of dam and broad-crested weir in other bay. Datum of gage is 1,063.57 ft (324.176 m) above mean sea level (levels by Wisconsin Works Progress Administration).

AVERAGE DISCHARGE.--9 years, 8.12 ft³/s (0.230 m³/s).

EXTREMES.--Current year: Maximum discharge, 332 ft³/s (9.40 m³/s) Mar. 7, gage height, 5.75 ft (1.75 m); minimum daily, 5.2 ft³/s (0.147 m³/s) Aug. 28, Sept. 14-16, 20.

Period of record: Maximum discharge, 332 ft³/s (9.40 m³/s) Mar. 7, 1973, gage height, 5.75 ft (1.75 m); minimum, 2.1 ft³/s (0.059 m³/s) Jan. 18, 1967, gage height, 0.81 ft (0.247 m); minimum daily, 2.2 ft³/s (0.062 m³/s) Aug. 11, 13, 14, 17-19, 1967, Aug. 27, 1970.

REMARKS.--Records good, except those for periods when stop logs are moved, which are fair. There is approximately 2 mi (3.2 km) of dredged drainage ditching above this gage. Sprinkler irrigation from ground-water wells is quite extensive in the basin. Records of water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 17 | 14 | 11 | 14 | 11 | 8.1 | 13 | 20 | 26 | 12 | 6.8 | 8.6 |
| 2 | 15 | 18 | 10 | 13 | 12 | 8.8 | 14 | 36 | 20 | 11 | 7.4 | 8.3 |
| 3 | 14 | 16 | 10 | 12 | 11 | 14 | 14 | 31 | 18 | 11 | 8.3 | 8.4 |
| 4 | 14 | 15 | 10 | 12 | 11 | 23 | 14 | 26 | 20 | 10 | 6.6 | 8.3 |
| 5 | 13 | 14 | 10 | 11 | 11 | 17 | 14 | 21 | 26 | 10 | 5.7 | 8.0 |
| 6 | 14 | 14 | 9.7 | 11 | 11 | 17 | 15 | 21 | 21 | 10 | 5.6 | 6.6 |
| 7 | 13 | 14 | 9.4 | 10 | 10 | 166 | 15 | 30 | 20 | 9.8 | 8.3 | 6.2 |
| 8 | 13 | 14 | 9.8 | 10 | 9.4 | 56 | 15 | 50 | 18 | 9.6 | 9.8 | 5.9 |
| 9 | 12 | 14 | 9.7 | 9.7 | 9.1 | 23 | 15 | 35 | 17 | 9.4 | 8.3 | 5.8 |
| 10 | 12 | 13 | 9.5 | 9.4 | 9.0 | 21 | 15 | 27 | 16 | 9.0 | 7.8 | 5.9 |
| 11 | 13 | 13 | 9.4 | 9.4 | 8.8 | 50 | 15 | 25 | 21 | 9.0 | 7.2 | 6.2 |
| 12 | 12 | 13 | 9.7 | 9.3 | 8.7 | 38 | 16 | 23 | 31 | 9.0 | 6.8 | 6.6 |
| 13 | 12 | 12 | 9.5 | 9.3 | 8.6 | 23 | 16 | 21 | 24 | 8.6 | 6.3 | 5.6 |
| 14 | 12 | 12 | 9.5 | 9.4 | 8.7 | 34 | 17 | 19 | 18 | 8.3 | 6.2 | 5.2 |
| 15 | 11 | 12 | 9.5 | 9.3 | 8.5 | 26 | 18 | 18 | 16 | 8.0 | 5.9 | 5.2 |
| 16 | 11 | 12 | 9.0 | 9.3 | 8.2 | 23 | 21 | 17 | 22 | 7.9 | 5.6 | 5.2 |
| 17 | 11 | 12 | 9.2 | 9.0 | 8.2 | 21 | 32 | 17 | 25 | 7.6 | 5.5 | 5.8 |
| 18 | 10 | 12 | 9.4 | 10 | 8.3 | 19 | 24 | 17 | 17 | 7.4 | 5.8 | 6.1 |
| 19 | 10 | 11 | 9.7 | 20 | 8.3 | 18 | 21 | 17 | 16 | 7.6 | 6.3 | 5.6 |
| 20 | 10 | 11 | 9.5 | 15 | 8.2 | 18 | 22 | 17 | 18 | 9.2 | 5.8 | 5.2 |
| 21 | 11 | 11 | 9.5 | 13 | 8.2 | 17 | 23 | 16 | 16 | 7.8 | 5.5 | 7.2 |
| 22 | 12 | 11 | 9.4 | 13 | 8.3 | 17 | 22 | 18 | 15 | 6.6 | 5.8 | 9.0 |
| 23 | 19 | 11 | 9.4 | 12 | 8.2 | 16 | 20 | 21 | 13 | 6.6 | 6.8 | 8.0 |
| 24 | 15 | 11 | 9.4 | 11 | 8.1 | 16 | 18 | 20 | 12 | 7.0 | 8.0 | 7.0 |
| 25 | 14 | 11 | 9.4 | 11 | 8.1 | 15 | 17 | 32 | 12 | 7.0 | 6.8 | 7.0 |
| 26 | 13 | 11 | 9.3 | 11 | 8.0 | 15 | 17 | 28 | 13 | 6.8 | 6.4 | 7.0 |
| 27 | 13 | 11 | 9.3 | 12 | 8.0 | 14 | 16 | 41 | 13 | 7.2 | 5.9 | 6.6 |
| 28 | 12 | 11 | 9.3 | 11 | 8.0 | 14 | 15 | 50 | 13 | 7.4 | 5.2 | 6.1 |
| 29 | 12 | 11 | 9.7 | 11 | ------ | 14 | 15 | 30 | 13 | 7.2 | 5.5 | 6.0 |
| 30 | 12 | 11 | 15 | 10 | ------ | 14 | 16 | 27 | 13 | 6.8 | 7.0 | 5.7 |
| 31 | 12 | ------ | 16 | 10 | ------ | 13 | ------ | 23 | ------ | 6.8 | 8.8 | ------ |
| TOTAL | 394 | 376 | 309.2 | 355.9 | 253.9 | 788.9 | 525 | 794 | 543 | 261.6 | 207.7 | 198.3 |
| MEAN | 12.7 | 12.5 | 9.97 | 11.5 | 9.07 | 25.4 | 17.5 | 25.6 | 18.1 | 8.44 | 6.70 | 6.61 |
| MAX | 19 | 18 | 16 | 20 | 12 | 166 | 32 | 50 | 31 | 12 | 9.8 | 9.0 |
| MIN | 10 | 11 | 9.0 | 9.3 | 8.0 | 8.1 | 13 | 16 | 12 | 6.6 | 5.2 | 5.2 |

CAL YR 1972 TOTAL 3,170.0 MEAN 8.66 MAX 33 MIN 3.4
WTR YR 1973 TOTAL 5,007.5 MEAN 13.7 MAX 166 MIN 5.2

## 05401050 Tenmile Creek near Nekoosa, Wis.

LOCATION.--Lat 44°15'44", long 89°48'38", in NE¼ sec.32, T.21 N., R.6 E., Wood County, on left bank upstream from bridge on State Highway 13, 5.8 mi (9.3 km) southeast of Nekoosa.

DRAINAGE AREA.--64 mi² (166 km²), approximately.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1962-63. October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 967.39 ft (294.860 m) above mean sea level. Prior to May 13, 1964, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--10 years, 61.8 ft³/s (1.750 m³/s).

EXTREMES.--Current year: Maximum discharge, 411 ft³/s (11.6 m³/s) Mar. 15, gage height, 6.47 ft (1.972 m); minimum, 41 ft³/s (1.16 m³/s) Feb. 25, gage height, 4.13 ft (1.259 m).

Period of record: Maximum discharge, 411 ft³/s (11.6 m³/s) Mar. 15, 1973, gage height, 6.47 ft (1.972 m); minimum, 9.5 ft³/s (0.27 m³/s) Dec. 16, 1964.

REMARKS.--Records good. Approximately 40 mi (64 km) of drainage ditches and 22 check dams are used to control the water table in the basin. Sprinkler irrigation from ground-water sources affects natural flow of creek.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).

| Oct. 1 to Jan. 29 | | | | Jan. 30 to Sept. 30 | | | |
|---|---|---|---|---|---|---|---|
| 4.4 | 60 | 5.5 | 210 | 4.2 | 46 | 5.5 | 196 |
| 5.0 | 129 | 6.0 | 310 | 4.5 | 70 | 6.0 | 290 |
| | | | | 5.0 | 124 | 6.5 | 420 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 220 | 110 | 82 | 94 | 80 | 64 | 129 | 154 | 182 | 104 | 64 | 61 |
| 2 | 200 | 121 | 77 | 91 | 85 | 64 | 135 | 210 | 165 | 104 | 63 | 61 |
| 3 | 185 | 134 | 75 | 96 | 85 | 69 | 137 | 282 | 157 | 100 | 62 | 61 |
| 4 | 171 | 128 | 74 | 86 | 83 | 84 | 139 | 252 | 156 | 96 | 61 | 59 |
| 5 | 150 | 122 | 76 | 72 | 82 | 92 | 135 | 215 | 171 | 93 | 60 | 57 |
| 6 | 150 | 117 | 70 | 75 | 80 | 90 | 134 | 188 | 109 | 91 | 61 | 56 |
| 7 | 143 | 117 | 71 | 72 | 76 | 142 | 149 | 192 | 170 | 89 | 64 | 54 |
| 8 | 136 | 117 | 71 | 72 | 64 | 335 | 149 | 307 | 156 | 86 | 66 | 54 |
| 9 | 128 | 113 | 72 | 69 | 69 | 295 | 148 | 359 | 145 | 84 | 66 | 54 |
| 10 | 122 | 110 | 70 | 67 | 67 | 230 | 129 | 331 | 135 | 83 | 63 | 53 |
| 11 | 119 | 107 | 69 | 67 | 68 | 245 | 137 | 280 | 136 | 82 | 61 | 51 |
| 12 | 117 | 105 | 67 | 65 | 66 | 350 | 146 | 239 | 170 | 80 | 60 | 50 |
| 13 | 113 | 102 | 64 | 65 | 66 | 310 | 144 | 210 | 188 | 78 | 59 | 50 |
| 14 | 111 | 100 | 67 | 66 | 65 | 313 | 150 | 188 | 161 | 77 | 59 | 50 |
| 15 | 108 | 97 | 67 | 67 | 60 | 393 | 159 | 173 | 146 | 76 | 58 | 50 |
| 16 | 106 | 95 | 63 | 68 | 58 | 330 | 214 | 162 | 147 | 74 | 57 | 49 |
| 17 | 103 | 94 | 65 | 72 | 59 | 282 | 309 | 154 | 156 | 73 | 56 | 53 |
| 18 | 100 | 92 | 67 | 88 | 61 | 241 | 266 | 148 | 149 | 71 | 57 | 52 |
| 19 | 97 | 90 | 66 | 113 | 62 | 214 | 227 | 145 | 141 | 70 | 57 | 50 |
| 20 | 96 | 89 | 68 | 106 | 63 | 196 | 205 | 140 | 133 | 69 | 57 | 49 |
| 21 | 102 | 88 | 69 | 96 | 63 | 182 | 224 | 136 | 125 | 68 | 55 | 49 |
| 22 | 108 | 87 | 70 | 93 | 61 | 169 | 232 | 151 | 121 | 68 | 55 | 54 |
| 23 | 131 | 85 | 70 | 88 | 64 | 160 | 205 | 160 | 120 | 67 | 60 | 53 |
| 24 | 145 | 85 | 71 | 84 | 63 | 153 | 185 | 153 | 118 | 70 | 59 | 52 |
| 25 | 137 | 85 | 72 | 81 | 52 | 149 | 170 | 166 | 114 | 69 | 58 | 52 |
| 26 | 131 | 87 | 72 | 80 | 61 | 143 | 161 | 185 | 111 | 67 | 58 | 52 |
| 27 | 124 | 86 | 70 | 82 | 60 | 137 | 152 | 168 | 111 | 66 | 56 | 50 |
| 28 | 118 | 83 | 73 | 80 | 64 | 134 | 144 | 189 | 110 | 66 | 54 | 50 |
| 29 | 112 | 81 | 72 | 68 | ——— | 130 | 138 | 267 | 108 | 65 | 53 | 49 |
| 30 | 109 | 82 | 88 | 76 | ——— | 126 | 137 | 248 | 105 | 66 | 53 | 49 |
| 31 | 110 | ——— | 106 | 74 | ——— | 123 | ——— | 296 | ——— | 65 | 50 | ——— |
| TOTAL | 4,010 | 3,009 | 2,234 | 2,473 | 1,887 | 5,953 | 5,072 | 6,358 | 4,296 | 2,417 | 1,831 | 1,504 |
| MEAN | 129 | 100 | 72.1 | 79.8 | 67.4 | 192 | 169 | 205 | 143 | 78.0 | 59.1 | 52.0 |
| MAX | 220 | 134 | 106 | 113 | 85 | 393 | 309 | 359 | 189 | 104 | 66 | 61 |
| MIN | 96 | 81 | 63 | 65 | 52 | 64 | 129 | 136 | 105 | 65 | 53 | 49 |

CAL YR 1972 TOTAL 26,001 MEAN 71.0 MAX 240 MIN 23
WTR YR 1973 TOTAL 41,124 MEAN 113 MAX 393 MIN 49

## WISCONSIN RIVER BASIN

### 05401100 Fourtoomile Creek near New Rome, Wis.

LOCATION.--Lat 44°12'15", long 89°48'29", in SW sec.17, T.20 N., R.6 E., Adams County, 50 ft (15 m) above twin culverts on State Highway 13, and 2.7 mi (4.3 km) southeast of New Rome.

DRAINAGE AREA.--77 mi² (199 km²), approximately.

PERIOD OF RECORD.--Annual maximum and occasional low-flow measurements, water years 1961-64. March 1964 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 980 ft (300 m), from topographic map. Prior to Mar. 2, 1964, crest-stage gage only at datum 7.03 ft (2.143 m) lower, and Mar. 2, 1964, to Aug. 27, 1964, nonrecording gage and crest-stage gage.

AVERAGE DISCHARGE.--9 years, 46.6 ft³/s (1.320 m³/s).

EXTREMES.--Current year: Maximum discharge, 546 ft³/s (15.5 m³/s) May 9, gage height, 6.05 ft (1.844 m); minimum daily, 9.2 ft³/s (0.26 m³/s) Sept. 12, 13, 15, 16.

Period of record: Maximum discharge, 546 ft³/s (15.5 m³/s) May 9, 1973, gage height, 6.05 ft (1.844 m); minimum, 0.65 ft³/s (0.018 m³/s) Jan. 25-27, 1968, gage height, 1.45 ft (0.442 m).

REMARKS.--Records good. Some regulation caused by manipulation of gates at recreation dam above station.

Rating table (gage height, in feet, and discharge, in cubic foot per second). (Shifting-control method used Oct. 30 to Nov. 14, Mar. 1-25, Apr. 8, 9, 15, 25, May 2 to June 1, June 12-19, Sept. 2-3.)

| | | | |
|---|---|---|---|
| 1.9 | 2.6 | 3.5 | 125 |
| 2.1 | 10 | 4.0 | 165 |
| 2.3 | 23 | 4.5 | 285 |
| 2.7 | 54 | 5.0 | 260 |
| 3.0 | 81 | 5.7 | 378 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 309 | 188 | 64 | 48 | 52 | 39 | 38 | 126 | 209 | 71 | 28 | 17 |
| 2 | 284 | 185 | 66 | 48 | 46 | 44 | 24 | 192 | 180 | 71 | 26 | 17 |
| 3 | 219 | 178 | 66 | 49 | 44 | 43 | 26 | 342 | 160 | 68 | 24 | 21 |
| 4 | 192 | 173 | 66 | 48 | 44 | 42 | 26 | 344 | 144 | 63 | 24 | 20 |
| 5 | 173 | 176 | 64 | 48 | 52 | 41 | 36 | 268 | 131 | 59 | 23 | 15 |
| 6 | 155 | 177 | 64 | 48 | 57 | 42 | 52 | 210 | 138 | 54 | 25 | 13 |
| 7 | 137 | 176 | 62 | 48 | 57 | 82 | 68 | 221 | 135 | 54 | 29 | 12 |
| 8 | 127 | 175 | 58 | 48 | 57 | 163 | 100 | 443 | 130 | 52 | 31 | 12 |
| 9 | 119 | 175 | 56 | 48 | 57 | 187 | 130 | 533 | 127 | 49 | 31 | 12 |
| 10 | 110 | 174 | 52 | 50 | 56 | 183 | 94 | 529 | 113 | 48 | 27 | 11 |
| 11 | 109 | 173 | 50 | 65 | 55 | 187 | 85 | 421 | 119 | 45 | 24 | 10 |
| 12 | 104 | 174 | 48 | 64 | 47 | 192 | 95 | 389 | 240 | 41 | 23 | 9.2 |
| 13 | 99 | 125 | 47 | 63 | 38 | 283 | 111 | 241 | 348 | 40 | 21 | 9.2 |
| 14 | 95 | 82 | 46 | 61 | 39 | 354 | 132 | 181 | 296 | 40 | 21 | 10 |
| 15 | 90 | 66 | 45 | 51 | 40 | 451 | 157 | 171 | 225 | 39 | 20 | 9.2 |
| 16 | 97 | 68 | 45 | 45 | 32 | 421 | 240 | 160 | 291 | 36 | 18 | 9.2 |
| 17 | 97 | 68 | 45 | 46 | 27 | 356 | 432 | 127 | 187 | 35 | 17 | 14 |
| 18 | 91 | 59 | 45 | 47 | 28 | 292 | 484 | 123 | 169 | 33 | 21 | 14 |
| 19 | 83 | 59 | 45 | 48 | 28 | 244 | 315 | 123 | 151 | 32 | 20 | 14 |
| 20 | 78 | 72 | 45 | 52 | 28 | 230 | 256 | 104 | 133 | 32 | 17 | 13 |
| 21 | 88 | 76 | 45 | 59 | 28 | 228 | 256 | 100 | 110 | 32 | 15 | 13 |
| 22 | 92 | 76 | 45 | 59 | 29 | 226 | 268 | 123 | 91 | 32 | 16 | 15 |
| 23 | 99 | 73 | 45 | 67 | 29 | 185 | 223 | 123 | 87 | 29 | 24 | 14 |
| 24 | 111 | 65 | 46 | 73 | 28 | 165 | 189 | 123 | 88 | 31 | 24 | 14 |
| 25 | 123 | 56 | 46 | 73 | 29 | 166 | 165 | 149 | 85 | 31 | 21 | 15 |
| 26 | 151 | 54 | 46 | 72 | 29 | 89 | 143 | 165 | 83 | 30 | 20 | 15 |
| 27 | 135 | 60 | 46 | 70 | 29 | 124 | 131 | 167 | 82 | 29 | 19 | 16 |
| 28 | 112 | 62 | 45 | 70 | 29 | 152 | 122 | 199 | 80 | 28 | 17 | 15 |
| 29 | 113 | 62 | 47 | 69 | ——— | 115 | 115 | 336 | 75 | 29 | 15 | 15 |
| 30 | 150 | 64 | 48 | 68 | ——— | 71 | 111 | 331 | 73 | 34 | 15 | 13 |
| 31 | 204 | ——— | 48 | 57 | ——— | 60 | ——— | 274 | ——— | 31 | 15 | ——— |
| TOTAL | 4,131 | 3,395 | 1,587 | 1,770 | 1,114 | 5,439 | 4,556 | 7,257 | 4,398 | 1,382 | 671 | 406.8 |
| MEAN | 133 | 112 | 51.2 | 57.1 | 39.8 | 175 | 152 | 234 | 147 | 42.0 | 21.6 | 13.6 |
| MAX | 309 | 188 | 66 | 73 | 57 | 451 | 432 | 533 | 348 | 71 | 31 | 21 |
| MIN | 78 | 54 | 45 | 45 | 27 | 39 | 24 | 104 | 73 | 28 | 15 | 9.2 |

CAL YR 1972 TOTAL 18,875.6 MEAN 49.4 MAX 309 MIN 2.1
WTR YR 1973 TOTAL 35,986.8 MEAN 98.6 MAX 533 MIN 9.2

## 05401535 Big Roche a Cri Creek near Adams, Wis.

LOCATION.--Lat 44°05'52", long 89°46'30", in SW¼ sec.22, T.19 N., R.6 E., Adams County, at culverts on Brown Deer Avenue, 0.5 mi (0.8 km) upstream from Dry Creek, and 10 mi (16.1 km) north of Adams.

DRAINAGE AREA.--54 mi² (140 km²), approximately.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 959.45 ft (292.440 m) above mean sea level. Prior to May 15, 1964, nonrecording gage at same site at datum 1.71 ft (0.52 m) higher.

AVERAGE DISCHARGE.--10 years, 61.0 ft³/s (1.728 m³/s).

EXTREMES.--Current year: Maximum discharge, 623 ft³/s (17.6 m³/s) Mar. 9, gage height, 6.82 ft (2.079 m) from high-water mark in well; minimum, 43 ft³/s (1.22 m³/s) Feb. 26, gage height, 1.95 ft (0.594 m), result of freezeup.

Period of record: Maximum discharge, 623 ft³/s (17.6 m³/s) Mar. 9, 1973, gage height, 6.82 ft (2.079 m) from high-water mark in well; minimum, 24 ft³/s (0.68 m³/s) Dec. 31, 1970, gage height, 1.36 ft (0.415 m) result of freezeup, Feb. 28, 1970, gage height, 1.47 ft (0.448 m).

REMARKS.--Records good except those for winter periods, which are fair. There is some irrigation from ground-water sources in the upper portion of basin.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used May 8 to June 25, Sept. 29, 30; stage-discharge relation affected by ice Dec. 30 to Jan. 15.)

| | | | |
|---|---|---|---|
| 2.0 | 45 | 5.0 | 200 |
| 2.5 | 65 | 6.0 | 333 |
| 3.0 | 90 | 6.5 | 473 |
| 4.0 | 140 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 188 | 104 | 74 | 70 | 73 | 59 | 110 | 129 | 156 | 85 | 57 | 58 |
| 2 | 168 | 109 | 70 | 68 | 81 | 60 | 123 | 175 | 143 | 82 | 55 | 54 |
| 3 | 149 | 119 | 72 | 72 | 81 | 65 | 128 | 292 | 135 | 81 | 54 | 57 |
| 4 | 136 | 117 | 62 | 74 | 77 | 83 | 129 | 245 | 130 | 77 | 53 | 54 |
| 5 | 127 | 110 | 72 | 66 | 75 | 86 | 128 | 191 | 130 | 74 | 52 | 51 |
| 6 | 123 | 104 | 71 | 70 | 74 | 110 | 125 | [illegible] | 131 | 72 | 53 | 49 |
| 7 | 121 | 103 | 70 | 72 | 71 | 188 | 127 | 168 | 124 | 70 | 61 | 48 |
| 8 | 118 | 105 | 73 | 72 | 59 | 350 | 129 | 387 | 117 | 68 | 59 | 49 |
| 9 | 112 | 101 | 72 | 72 | 71 | 460 | 126 | 415 | 114 | 66 | 61 | 50 |
| 10 | 107 | 98 | 71 | 70 | 71 | 380 | 112 | 331 | 117 | 68 | 56 | 49 |
| 11 | 106 | 95 | 69 | 72 | 65 | 280 | 105 | 251 | 112 | 66 | 54 | 48 |
| 12 | 106 | 92 | 66 | 74 | 64 | 350 | 121 | 292 | 146 | 64 | 53 | 47 |
| 13 | 102 | 90 | 69 | 76 | 63 | 290 | 133 | 176 | 214 | 63 | 52 | 47 |
| 14 | 99 | 88 | 70 | 78 | 64 | 254 | 138 | 162 | 192 | 62 | 54 | 47 |
| 15 | 96 | 86 | 70 | 74 | 61 | 320 | 145 | 152 | 156 | 61 | 52 | 47 |
| 16 | 94 | 84 | 69 | 74 | 55 | 284 | 174 | 144 | 146 | 61 | 52 | 47 |
| 17 | 93 | 84 | 64 | 74 | 72 | 224 | 204 | 137 | 156 | 60 | 51 | 51 |
| 18 | 90 | 83 | 67 | 82 | 63 | 191 | 261 | 131 | 158 | 59 | 53 | 52 |
| 19 | 89 | 81 | 68 | 83 | 63 | 170 | 203 | 128 | 146 | 58 | 54 | 48 |
| 20 | 88 | 80 | 67 | 84 | 63 | 158 | 179 | 126 | 130 | 57 | 52 | 47 |
| 21 | 94 | 80 | 68 | 84 | 60 | 149 | 180 | 121 | 118 | 57 | 50 | 47 |
| 22 | 102 | 78 | 67 | 83 | 59 | 142 | 184 | 124 | 111 | 58 | 51 | 50 |
| 23 | 120 | 76 | 65 | 81 | 59 | 136 | 171 | 129 | 106 | 56 | 67 | 54 |
| 24 | 136 | 76 | 63 | 78 | 59 | 131 | 157 | 128 | 102 | 58 | 64 | 50 |
| 25 | 138 | 77 | 63 | 75 | 56 | 127 | 146 | 136 | 96 | 58 | 57 | 51 |
| 26 | 129 | 80 | 63 | 76 | 55 | 123 | 138 | 150 | 94 | 56 | 55 | 51 |
| 27 | 120 | 78 | 62 | 77 | 61 | 119 | 131 | 151 | 95 | 59 | 53 | 50 |
| 28 | 112 | 76 | 62 | 77 | 61 | 115 | 125 | 158 | 95 | 57 | 51 | 50 |
| 29 | 107 | 73 | 63 | 65 | ------ | 111 | 121 | 216 | 90 | 56 | 50 | 50 |
| 30 | 102 | 73 | 66 | 75 | ------ | 108 | 120 | 222 | 88 | 60 | 49 | 50 |
| 31 | 102 | ------ | 70 | 75 | ------ | 105 | ------ | 180 | ------ | 60 | 51 | ------ |
| TOTAL | 3,558 | 2,780 | 2,098 | 2,323 | 1,836 | 5,470 | 4,453 | 5,743 | 3,848 | 1,997 | 1,686 | 1,511 |
| MEAN | 115 | 98.0 | 67.7 | 74.9 | 65.6 | 176 | 148 | 185 | 128 | 64.4 | 54.4 | 50.4 |
| MAX | 188 | 119 | 74 | 84 | 81 | 460 | 204 | 415 | 214 | 85 | 67 | 58 |
| MIN | 88 | 73 | 62 | 65 | 55 | 59 | 105 | 121 | 88 | 56 | 49 | 47 |

CAL YR 1972 TOTAL 26,824 MEAN 71.1 MAX 250 MIN 38
WTR YR 1973 TOTAL 37,223 MEAN 102 MAX 460 MIN 47

PEAK DISCHARGE (BASE, 110 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-24 | 2200 | 3.98 | 139 | 4-17 | 1400 | 5.87 | 306 |
| 11- 3 | 1500 | 3.60 | 120 | 5- 3 | 1100 | 5.96 | 310 |
| 3- 9 | -- | 6.82 | 623 | 5- 9 | 0500 | 6.50 | 433 |
| 3-15 | 1000 | 6.00 | 333 | 5-29 | 2100 | 5.57 | 238 |
| 4- 8 | 0100 | 3.79 | 150 | 6-13 | 1200 | 5.43 | 225 |

## 05402000 Yellow River at Babcock, Wis.

LOCATION.--Lat 44°18'05", long 90°07'15", in NW¼ sec.14, T.21 N., R.3 E., Wood County, on right bank at downstream side of bridge on State Highway 80 at Babcock, 1.9 mi (3.1 km) upstream from Hemlock Creek.

DRAINAGE AREA.--223 mi² (578 km²).

PERIOD OF RECORD.--March 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 954.75 ft (291.008 m) above mean sea level. Prior to Oct. 28, 1948, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--29 years, 144 ft³/s (4.078 m³/s), 8.77 in/yr (223 mm/yr).

EXTREMES.--Current year: Maximum discharge, 7,550 ft³/s (214 m³/s) Apr. 17, gage height, 15.46 ft (4.712 m); minimum, 5.0 ft³/s (0.142 m³/s) Sept. 19, gage height, 1.85 ft (0.564 m).

Period of record: Maximum discharge, 11,600 ft³/s (329 m³/s) Apr. 2, 1952, gage height, 17.38 ft (5.297 m); minimum observed, 1.0 ft³/s (0.028 m³/s) Oct. 1, 1948, gage height, 1.22 ft (0.372 m).

REMARKS.--Records good except those for winter periods, which are fair. There is a large recreation dam about 5 mi (8.0 km) upstream.

REVISIONS (WATER YEARS).--WSP 1308: 1944(M), 1946-47(M), 1949(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,220 | 194 | 27 | 100 | 58 | 28 | 137 | 140 | 649 | 29 | 12 | 9.9 |
| 2 | 685 | 162 | 25 | 220 | 54 | 29 | 182 | 1,250 | 303 | 96 | 11 | 10 |
| 3 | 389 | 1,110 | 24 | 400 | 52 | 32 | 414 | 4,720 | 240 | 76 | 11 | 14 |
| 4 | 252 | 1,990 | 23 | 320 | 50 | 45 | 681 | 2,310 | 189 | 58 | 11 | 15 |
| 5 | 151 | 1,150 | 22 | 280 | 47 | 170 | 769 | 1,050 | 138 | 41 | 11 | 18 |
| 6 | 160 | 659 | 21 | 230 | 45 | 700 | 757 | 605 | 198 | 32 | 11 | 20 |
| 7 | 187 | 538 | 21 | 200 | 43 | 2,130 | 775 | 388 | 159 | 28 | 14 | 16 |
| 8 | 85 | 501 | 20 | 180 | 40 | 6,000 | 1,370 | 916 | 171 | 23 | 14 | 13 |
| 9 | 106 | 594 | 20 | 160 | 38 | 3,780 | 902 | 1,430 | 141 | 20 | 15 | 10 |
| 10 | 101 | 462 | 19 | 140 | 36 | 2,110 | 858 | 1,120 | 118 | 18 | 14 | 8.5 |
| 11 | 96 | 386 | 19 | 130 | 35 | 2,840 | 192 | 809 | 82 | 17 | 14 | 7.7 |
| 12 | 88 | 252 | 18 | 120 | 34 | 6,350 | 144 | 689 | 428 | 16 | 14 | 7.6 |
| 13 | 85 | 190 | 18 | 110 | 33 | 3,560 | 493 | 443 | 559 | 15 | 14 | 6.4 |
| 14 | 84 | 160 | 17 | 100 | 32 | 2,980 | 839 | 328 | 456 | 15 | 15 | 5.9 |
| 15 | 77 | 140 | 17 | 90 | 32 | 3,840 | 1,140 | 145 | 153 | 14 | 14 | 5.7 |
| 16 | 70 | 120 | 17 | 82 | 31 | 2,330 | 4,430 | 143 | 203 | 13 | 13 | 5.6 |
| 17 | 68 | 100 | 17 | 78 | 31 | 1,190 | 5,990 | 132 | 223 | 13 | 13 | 5.4 |
| 18 | 58 | 92 | 16 | 74 | 30 | 762 | 2,080 | 117 | 335 | 13 | 13 | 5.1 |
| 19 | 56 | 80 | 16 | 70 | 30 | 564 | 1,010 | 104 | 198 | 12 | 14 | 5.0 |
| 20 | 52 | 70 | 16 | 80 | 30 | 413 | 580 | 90 | 107 | 12 | 14 | 6.5 |
| 21 | 56 | 64 | 16 | 98 | 29 | 338 | 587 | 80 | 72 | 11 | 14 | 6.5 |
| 22 | 62 | 56 | 16 | 110 | 29 | 191 | 674 | 91 | 56 | 11 | 12 | 7.7 |
| 23 | 248 | 50 | 16 | 100 | 29 | 215 | 889 | 169 | 47 | 11 | 14 | 7.9 |
| 24 | 1,410 | 46 | 16 | 98 | 28 | 195 | 541 | 247 | 42 | 11 | 14 | 6.2 |
| 25 | 1,350 | 42 | 16 | 92 | 28 | 180 | 227 | 3,200 | 38 | 12 | 13 | 6.0 |
| 26 | 889 | 38 | 16 | 84 | 28 | 176 | 194 | 5,420 | 36 | 11 | 14 | 6.2 |
| 27 | 528 | 35 | 16 | 78 | 28 | 176 | 162 | 2,390 | 33 | 11 | 13 | 6.6 |
| 28 | 369 | 32 | 17 | 72 | 28 | 172 | 132 | 1,440 | 32 | 11 | 12 | 6.9 |
| 29 | 165 | 30 | 19 | 70 | ------ | 164 | 117 | 3,480 | 31 | 11 | 12 | 6.5 |
| 30 | 162 | 28 | 30 | 66 | ------ | 153 | 111 | 2,210 | 30 | 13 | 11 | 6.6 |
| 31 | 210 | ------ | 45 | 52 | ------ | 145 | ------ | 1,030 | ------ | 12 | 10 | ------ |
| TOTAL | 9,519 | 9,291 | 616 | 4,094 | 1,088 | 41,958 | 27,377 | 36,686 | 5,467 | 686 | 401 | 262.4 |
| MEAN | 307 | 310 | 19.9 | 132 | 36.0 | 1,353 | 913 | 1,183 | 182 | 22.1 | 12.9 | 8.75 |
| MAX | 1,410 | 1,990 | 45 | 400 | 58 | 6,350 | 5,990 | 5,420 | 649 | 96 | 15 | 20 |
| MIN | 52 | 28 | 16 | 62 | 28 | 28 | 111 | 80 | 30 | 11 | 10 | 5.0 |
| CFSM | 1.38 | 1.39 | .09 | .59 | .16 | 6.07 | 4.09 | 5.30 | .82 | .10 | .06 | .04 |
| IN. | 1.59 | 1.55 | .10 | .68 | .17 | 7.00 | 4.57 | 6.12 | .91 | .11 | .07 | .04 |

CAL YR 1972 TOTAL 91,185.0 MEAN 249 MAX 3,630 MIN 11 CFSM 1.12 IN 15.21
WTR YR 1973 TOTAL 137,365.4 MEAN 376 MAX 6,350 MIN 5.0 CFSM 1.69 IN 22.91

PEAK DISCHARGE (BASE, 1,200 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-24 | 1600 | 9.95 | 1,800 | 4-17 | 0400 | 15.46 | 7,550 |
| 11- 4 | 0200 | 10.44 | 2,140 | 5- 3 | 1000 | 14.01 | 5,270 |
| 3-12 | 1000 | 15.05 | 7,050 | 5- 9 | 1700 | 9.31 | 1,490 |
| 4- 8 | 0400 | 9.31 | 1,480 | 5-25 | 2100 | 15.16 | 7,110 |

## 05403500 Lemonweir River at New Lisbon, Wis.

LOCATION.--Lat 43°52'47", long 90°09'40", in SE¼ sec.8, T.16 N., R.3 E., Juneau County, near center of span on downstream side of bridge on State Highway 80 in New Lisbon, 200 ft (60 m) downstream from recreation dam and 1.2 mi (1.9 km) upstream from Webster Creek.

DRAINAGE AREA.--500 mi² (1,300 km²), approximately.

PERIOD OF RECORD.--March 1944 to current year.

GAGE.--Nonrecording gage. Datum of gage is 867.05 ft (264.277 m) above mean sea level. Prior to May 5, 1948, nonrecording gage at site 100 ft (30 m) downstream at same datum.

AVERAGE DISCHARGE.--29 years, 364 ft³/s (10.3 m³/s), 9.89 in/yr (251 mm/yr).

EXTREMES.--Current year: Maximum discharge observed, 4,980 ft³/s (141 m³/s) Apr. 18, gage height, 12.48 ft (3.804 m); minimum observed, 83 ft³/s (2.35 m³/s) Aug. 7, gage height, 1.32 ft (0.402 m).
Period of record: Maximum discharge, 6,880 ft³/s (195 m³/s) May 8, 1960, gage height, 12.94 ft (3.944 m) from graph based on gage readings; minimum observed, 36 ft³/s (1.02 m³/s) Aug. 15, 1944, gage height, -0.06 ft (-0.018 m).

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation by dam 200 ft (60 m) upstream. Water diverted periodically into the basin from the Yellow and Black River basins for cranberry culture.

REVISIONS (WATER YEARS).--WSP 1308: 1944(M), 1949-50(M). WSP 1728: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Oct. 1-12, May 6 to Aug. 7; stage-discharge relation affected by ice Nov. 17-20, Nov. 22 to Feb. 8, Feb. 15 to Mar. 5.)

| | | | |
|---|---|---|---|
| 1.2 | 82 | 7.0 | 1,030 |
| 2.0 | 143 | 9.0 | 1,870 |
| 3.0 | 250 | 11.0 | 3,370 |
| 5.0 | 560 | 12.5 | 5,010 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,920 | 882 | 310 | 480 | 430 | 270 | 673 | 1,130 | 2,360 | 350 | 95 | 195 |
| 2 | 2,350 | 934 | 300 | 490 | 480 | 280 | 897 | 1,750 | 1,890 | 356 | 100 | 228 |
| 3 | 1,880 | 1,010 | 290 | 480 | 520 | 300 | 973 | 2,630 | 1,550 | 336 | 104 | 360 |
| 4 | 1,450 | 1,060 | 280 | 470 | 560 | 480 | 983 | 2,950 | 1,290 | 345 | 109 | 307 |
| 5 | 1,190 | 1,080 | 270 | 540 | 560 | 600 | 1,000 | 2,680 | 1,150 | 347 | 107 | 276 |
| 6 | 1,000 | 1,080 | 260 | 560 | 540 | 874 | 1,010 | 2,100 | 1,060 | 312 | 106 | 248 |
| 7 | 918 | 1,040 | 250 | 520 | 500 | 1,430 | 1,020 | 2,060 | 988 | 283 | 93 | 217 |
| 8 | 864 | 1,000 | 240 | 470 | 480 | 2,040 | 978 | 2,870 | 848 | 257 | 159 | 192 |
| 9 | 812 | 968 | 240 | 440 | 446 | 2,300 | 950 | 3,110 | 808 | 214 | 324 | 187 |
| 10 | 762 | 929 | 230 | 410 | 426 | 2,310 | 884 | 2,840 | 745 | 184 | 402 | 182 |
| 11 | 726 | 887 | 230 | 390 | 400 | 2,500 | 848 | 2,440 | 628 | 175 | 357 | 180 |
| 12 | 704 | 830 | 230 | 370 | 379 | 3,120 | 929 | 2,010 | 470 | 168 | 294 | 171 |
| 13 | 669 | 788 | 230 | 350 | 356 | 3,580 | 1,130 | 1,660 | 470 | 163 | 244 | 167 |
| 14 | 618 | 748 | 230 | 340 | 351 | 3,830 | 1,500 | 1,410 | 442 | 161 | 208 | 157 |
| 15 | 560 | 671 | 220 | 340 | 340 | 4,100 | 2,030 | 1,190 | 451 | 159 | 183 | 147 |
| 16 | 424 | 638 | 220 | 340 | 330 | 3,860 | 3,360 | 1,030 | 453 | 158 | 164 | 160 |
| 17 | 411 | 600 | 220 | 350 | 320 | 3,500 | 4,490 | 835 | 442 | 156 | 151 | 169 |
| 18 | 480 | 560 | 220 | 390 | 300 | 3,010 | 4,890 | 764 | 440 | 152 | 141 | 181 |
| 19 | 475 | 540 | 220 | 800 | 290 | 2,500 | 4,410 | 724 | 461 | 135 | 139 | 195 |
| 20 | 467 | 490 | 220 | 960 | 290 | 2,110 | 3,660 | 689 | 493 | 120 | 136 | 204 |
| 21 | 478 | 450 | 220 | 980 | 290 | 1,800 | 3,460 | 650 | 515 | 121 | 129 | 206 |
| 22 | 506 | 450 | 220 | 960 | 280 | 1,560 | 3,280 | 660 | 528 | 123 | 128 | 250 |
| 23 | 921 | 430 | 220 | 880 | 280 | 1,360 | 2,800 | 660 | 504 | 122 | 234 | 284 |
| 24 | 1,060 | 420 | 220 | 800 | 280 | 1,150 | 2,280 | 656 | 475 | 123 | 386 | 287 |
| 25 | 1,170 | 400 | 210 | 720 | 270 | 973 | 1,880 | 812 | 430 | 124 | 482 | 326 |
| 26 | 1,350 | 390 | 210 | 640 | 270 | 887 | 1,510 | 965 | 485 | 125 | 519 | 363 |
| 27 | 1,480 | 380 | 210 | 560 | 270 | 782 | 1,240 | 1,180 | 392 | 109 | 644 | 360 |
| 28 | 1,310 | 370 | 210 | 490 | 270 | 700 | 1,010 | 1,680 | 296 | 108 | 689 | 365 |
| 29 | 1,130 | 340 | 220 | 460 | ------ | 713 | 905 | 2,240 | 349 | 108 | 549 | 366 |
| 30 | 994 | 330 | 240 | 440 | ------ | 670 | 890 | 2,570 | 363 | 108 | 326 | 411 |
| 31 | 916 | ------ | 320 | 420 | ------ | 636 | ------ | 2,600 | ------ | 104 | 215 | ------ |
| TOTAL | 30,825 | 29,695 | 7,410 | 16,760 | 10,500 | 54,081 | 55,790 | 51,545 | 21,526 | 5,806 | 7,917 | 7,341 |
| MEAN | 995 | 690 | 239 | 541 | 375 | 1,745 | 1,860 | 1,663 | 718 | 187 | 255 | 245 |
| MAX | 2,920 | 1,080 | 320 | 980 | 560 | 4,100 | 4,890 | 3,110 | 2,360 | 356 | 689 | 411 |
| MIN | 411 | 330 | 210 | 340 | 270 | 270 | 673 | 650 | 296 | 104 | 93 | 147 |
| CFSM | 1.99 | 1.38 | .48 | 1.08 | .75 | 3.49 | 3.72 | 3.33 | 1.44 | .37 | .51 | .49 |
| IN. | 2.29 | 1.54 | .55 | 1.25 | .78 | 4.02 | 4.15 | 3.83 | 1.60 | .43 | .59 | .55 |

CAL YR 1972 TOTAL 192,963 MEAN 527 MAX 4,240 MIN 88 CFSM 1.05 IN 14.36
WTR YR 1973 TOTAL 290,214 MEAN 795 MAX 4,890 MIN 93 CFSM 1.59 IN 21.59

## 05403630 Hulburt Creek near Wisconsin Dells, Wis.

LOCATION.--Lat 43°37'37", long 89°48'36", in SW¼ sec.5, T.13 N., R.6 E., Sauk County, on left bank 300 ft (91 m) upstream from highway bridge, 2.0 mi (3.2 km) west of Wisconsin Dells, and 1.6 mi (2.6 km) upstream from mouth.

DRAINAGE AREA.--11.1 mi² (28.7 km²).

RECORDS AVAILABLE.--October 1970 to current year.

GAGE.--Water-stage recorder.

EXTREMES.--Current year: Maximum discharge, 93 ft³/s (2.63 m³/s) Mar. 7, gage height, 4.37 ft (1.332 m); minimum, 2.9 ft³/s (0.082 m³/s) Aug. 27.

Period of record: Maximum discharge, 93 ft³/s (2.63 m³/s) Mar. 7, 1973, gage height, 4.37 ft (1.332 m), Aug. 26, 1972, gage height, 4.76 ft (1.451 m); minimum, 1.3 ft³/s (0.037 m³/s) June 24, 1972.

REMARKS.--Records fair except those periods of no gage-height record and winter periods, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7.2 | 6.8 | 4.7 | 6.0 | 10 | 7.7 | 14 | 30 | 10 | 5.4 | 4.9 | 4.8 |
| 2 | 6.2 | 9.4 | 4.4 | 4.9 | 20 | 11 | 20 | 37 | 9.0 | 5.3 | 4.7 | 4.0 |
| 3 | 5.6 | 7.9 | 4.3 | 4.8 | 8.4 | 10 | 12 | 19 | 12 | 5.2 | 4.7 | 5.7 |
| 4 | 5.4 | 6.5 | 3.8 | 5.2 | 7.0 | 8.2 | 12 | 15 | 9.0 | 5.0 | 4.4 | 4.6 |
| 5 | 5.4 | 6.1 | 3.5 | 4.7 | 6.2 | 6.2 | 9.2 | 13 | 9.7 | 4.8 | 4.4 | 4.3 |
| 6 | 6.2 | 6.4 | 3.6 | 4.4 | 6.1 | 12 | 9.0 | 13 | 8.5 | 4.8 | 4.6 | 4.1 |
| 7 | 5.6 | 8.2 | 3.4 | 4.3 | 5.6 | 58 | 8.4 | 30 | 7.9 | 4.7 | 4.7 | 3.6 |
| 8 | 5.2 | 7.1 | 3.4 | 4.2 | 5.2 | 14 | 8.5 | 35 | 7.6 | 4.6 | 5.1 | 3.9 |
| 9 | 5.0 | 6.2 | 3.3 | 4.1 | 4.9 | 10 | 8.6 | 22 | 7.1 | 7.4 | 8.0 | 4.3 |
| 10 | 4.8 | 6.2 | 3.3 | 4.0 | 4.9 | 14 | 10 | 16 | 6.7 | 7.0 | 5.0 | 4.4 |
| 11 | 5.2 | 6.2 | 3.2 | 3.8 | 4.9 | 36 | 10 | 13 | 6.7 | 4.9 | 4.8 | 4.9 |
| 12 | 5.2 | 6.0 | 3.2 | 3.7 | 4.9 | 20 | 12 | 12 | 8.4 | 4.6 | 4.8 | 4.4 |
| 13 | 4.8 | 5.8 | 3.2 | 3.6 | 4.9 | 13 | 14 | 11 | 6.8 | 4.4 | 3.9 | 4.3 |
| 14 | 4.8 | 5.7 | 3.2 | 3.8 | 5.0 | 33 | 23 | 10 | 6.2 | 4.4 | 4.2 | 4.6 |
| 15 | 5.0 | 5.4 | 3.2 | 3.9 | 5.2 | 17 | 33 | 9.8 | 6.8 | 4.6 | 4.0 | 4.9 |
| 16 | 5.4 | 5.0 | 3.2 | 4.1 | 4.9 | 14 | 51 | 9.7 | 6.2 | 4.6 | 3.9 | 5.2 |
| 17 | 5.2 | 5.3 | 3.2 | 16 | 4.9 | 13 | 25 | 9.4 | 8.6 | 4.6 | 3.9 | 6.5 |
| 18 | 4.9 | 5.3 | 3.2 | 27 | 4.9 | 11 | 18 | 9.1 | 6.8 | 4.4 | 3.6 | 6.2 |
| 19 | 4.8 | 4.8 | 3.3 | 20 | 4.9 | 10 | 16 | 9.6 | 6.5 | 4.4 | 3.6 | 5.6 |
| 20 | 4.9 | 4.9 | 3.5 | 7.4 | 5.0 | 9.6 | 16 | 9.0 | 6.1 | 4.8 | 3.8 | 5.8 |
| 21 | 8.4 | 5.2 | 3.7 | 6.0 | 4.6 | 9.0 | 22 | 8.8 | 6.0 | 5.0 | 3.5 | 5.3 |
| 22 | 9.8 | 4.9 | 4.1 | 5.8 | 5.0 | 8.6 | 18 | 11 | 5.8 | 5.7 | 3.5 | 10 |
| 23 | 20 | 4.8 | 4.2 | 6.2 | 5.2 | 8.8 | 13 | 9.7 | 6.2 | 5.0 | 7.9 | 6.7 |
| 24 | 10 | 4.7 | 4.2 | 5.6 | 5.0 | 8.4 | 11 | 11 | 6.0 | 7.7 | 5.4 | 5.4 |
| 25 | 7.9 | 5.2 | 4.3 | 6.1 | 4.9 | 8.4 | 11 | 19 | 5.7 | 6.0 | 4.4 | 7.4 |
| 26 | 7.4 | 5.8 | 4.3 | 6.0 | 4.8 | 8.0 | 10 | 10 | 5.8 | 5.4 | 3.9 | 6.7 |
| 27 | 6.8 | 5.3 | 4.2 | 6.1 | 4.9 | 7.6 | 9.4 | 22 | 6.1 | 6.0 | 3.3 | 6.7 |
| 28 | 6.4 | 4.7 | 4.3 | 5.7 | 4.9 | 7.6 | 9.2 | 41 | 6.0 | 5.3 | 3.3 | 6.7 |
| 29 | 6.2 | 4.2 | 4.6 | 5.4 | ------- | 7.6 | 26 | 18 | 5.7 | 4.9 | 3.3 | 11 |
| 30 | 6.1 | 4.6 | 10 | 5.0 | ------- | 7.3 | 21 | 12 | 5.7 | 5.4 | 3.5 | 9.1 |
| 31 | 6.7 | ------- | 9.8 | 5.0 | ------- | 7.3 | ------- | 11 | ------- | 4.9 | 3.9 | ------- |
| TOTAL | 202.5 | 174.6 | 127.8 | 202.8 | 167.1 | 416.3 | 488.3 | 506.1 | 217.2 | 161.2 | 135.3 | 170.9 |
| MEAN | 6.53 | 5.82 | 4.12 | 6.54 | 5.97 | 13.4 | 16.0 | 16.3 | 7.24 | 5.20 | 4.36 | 5.70 |
| MAX | 20 | 9.4 | 10 | 27 | 20 | 58 | 51 | 41 | 12 | 7.7 | 8.0 | 11 |
| MIN | 4.8 | 4.2 | 3.2 | 3.6 | 4.6 | 6.2 | 8.4 | 8.8 | 5.7 | 4.4 | 3.3 | 3.6 |
| CFSM | .59 | .52 | .37 | .59 | .54 | 1.21 | 1.44 | 1.47 | .65 | .47 | .39 | .51 |
| IN. | .68 | .59 | .43 | .68 | .56 | 1.40 | 1.61 | 1.70 | .73 | .54 | 45 | .57 |

CAL YR 1972 TOTAL 1,899.8 MEAN 5.19 MAX 59 MIN 1.8 CFSM .47 IN 6.37
WTR YR 1973 TOTAL 2,962.1 MEAN 8.12 MAX 58 MIN 3.2 CFSM .73 IN 9.93

PEAK DISCHARGE (BASE: 38 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 1-18 | 0200 | 2.70 | 32 | 4-14 | 2130 | 2.89 | 38 |
| 2- 2 | a0500 | 2.74 | 34 | 4-16 | 1200 | 3.68 | 64 |
| 3- 7 | 0830 | 4.37 | 93 | 4-29 | 1500 | 3.02 | 42 |
| 3-11 | 0500 | 2.93 | 39 | 5- 1 | 1430 | 2.99 | 41 |
| 3-14 | 1000 | 3.09 | 44 | 5- 2 | 0900 | 3.19 | 47 |
| | | | | 5-28 | 0100 | 3.70 | 65 |

a About.

## 05403700 Dell Creek near Lake Delton, Wis.

LOCATION.--Lat 43°33'05", long 89°51'55", in NW¼ sec.2, T.12 N., R.5 E., Sauk County, on right bank 50 ft (15 m) upstream from highway bridge, 6.0 mi (9.7 km) southwest of Lake Delton, and 7.0 mi (11.3 km) upstream from mouth.

DRAINAGE AREA.--44.9 $mi^2$ (116.3 $km^2$).

RECORDS AVAILABLE.--September 1957 to September 1965, October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 847.49 ft (258.315 m) above mean sea level, datum of 1929. Prior to Oct. 4, 1957, wire-weight gage 50 ft (15 m) downstream at same datum.

AVERAGE DISCHARGE.--11 years (1957-65, 1970-73), 29.0 $ft^3/s$ (0.821 $m^3/s$), 8.77 in/yr (222 mm/yr).

EXTREMES.--Current year: Maximum discharge, 586 $ft^3/s$ (16.6 $m^3/s$) Mar. 7, gage height, 7.54 ft (2.298 m); minimum daily, 19 $ft^3/s$ (0.54 $m^3/s$) Dec. 14-19.

Period of record: Maximum discharge, 992 $ft^3/s$ (28.1 $m^3/s$) Mar. 2, 1965, gage height, 8.38 ft (2.554 m); minimum, 11 $ft^3/s$ (0.31 $m^3/s$) Aug. 1, 2, 1959, gage height, 1.75 ft (0.533 m).

REMARKS.--Records good except those for periods of no gage-height record, winter periods, and periods of backwater from beaver dams, which are fair.

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by beaver dams Oct. 1 to Nov. 30; stage-discharge relation affected by ice Dec. 1 to Jan. 16, Jan. 22-23, 29, Feb. 8-11, 16-18.)

| Oct. 1 to Feb. 1 | | | | Feb. 2 to Sept. 30 | | | |
|---|---|---|---|---|---|---|---|
| 2.4 | 19 | 4.0 | 68 | 2.4 | 18 | 5.0 | 118 |
| 3.0 | 32 | 5.0 | 130 | 3.0 | 31 | 6.0 | 217 |
| 3.5 | 47 | 6.0 | 247 | 3.5 | 44 | 7.0 | 410 |
| | | | | 4.0 | 63 | 7.6 | 610 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | 35 | 27 | 37 | 65 | 50 | 52 | 131 | 56 | 34 | 27 | 34 |
| 2 | 31 | 57 | 26 | 30 | 141 | 78 | 95 | 172 | 54 | 32 | 26 | 33 |
| 3 | 28 | 53 | 25 | 28 | 62 | 72 | 66 | 111 | 60 | 32 | 25 | 46 |
| 4 | 28 | 38 | 24 | 29 | 37 | 59 | 56 | 69 | 52 | 32 | 25 | 32 |
| 5 | 28 | 34 | 23 | 27 | 36 | 42 | 49 | 59 | 62 | 30 | 25 | 29 |
| 6 | 32 | 33 | 22 | 26 | 33 | 54 | 43 | 58 | 50 | 29 | 24 | 27 |
| 7 | 29 | 43 | 22 | 26 | 32 | 458 | 41 | 124 | 46 | 29 | 26 | 26 |
| 8 | 27 | 41 | 21 | 25 | 30 | 204 | 40 | 184 | 43 | 28 | 31 | 26 |
| 9 | 26 | 34 | 21 | 25 | 29 | 57 | 44 | 137 | 42 | 29 | 44 | 30 |
| 10 | 25 | 33 | 20 | 25 | 28 | 54 | 49 | 85 | 39 | 32 | 33 | 29 |
| 11 | 27 | 32 | 20 | 24 | 27 | 156 | 50 | 65 | 38 | 29 | 27 | 28 |
| 12 | 26 | 31 | 20 | 24 | 27 | 137 | 54 | 59 | 51 | 28 | 26 | 26 |
| 13 | 25 | 30 | 20 | 23 | 27 | 77 | 58 | 56 | 42 | 27 | 26 | 26 |
| 14 | 24 | 30 | 19 | 23 | 28 | 134 | 70 | 54 | 38 | 27 | 28 | 26 |
| 15 | 24 | 29 | 19 | 23 | 28 | 118 | 100 | 52 | 39 | 27 | 27 | 26 |
| 16 | 27 | 29 | 19 | 24 | 27 | 70 | 260 | 50 | 44 | 27 | 26 | 27 |
| 17 | 26 | 30 | 19 | 133 | 27 | 60 | 180 | 48 | 56 | 27 | 26 | 31 |
| 18 | 25 | 29 | 19 | 192 | 27 | 54 | 100 | 48 | 42 | 26 | 26 | 32 |
| 19 | 24 | 28 | 19 | 176 | 27 | 50 | 74 | 63 | 42 | 26 | 26 | 28 |
| 20 | 24 | 28 | 20 | 75 | 28 | 46 | 68 | 52 | 38 | 26 | 26 | 28 |
| 21 | 44 | 29 | 22 | 35 | 28 | 44 | 109 | 48 | 37 | 27 | 25 | 28 |
| 22 | 54 | 28 | 23 | 34 | 28 | 41 | 88 | 58 | 36 | 32 | 28 | 67 |
| 23 | 122 | 27 | 24 | 33 | 30 | 39 | 61 | 46 | 36 | 28 | 64 | 40 |
| 24 | 104 | 27 | 24 | 32 | 33 | 39 | 54 | 57 | 36 | 32 | 47 | 38 |
| 25 | 53 | 30 | 25 | 35 | 29 | 39 | 50 | 93 | 34 | 29 | 34 | 48 |
| 26 | 42 | 34 | 25 | 37 | 27 | 38 | 49 | 56 | 34 | 28 | 28 | 35 |
| 27 | 38 | 30 | 25 | 36 | 26 | 44 | 47 | 131 | 41 | 29 | 26 | 32 |
| 28 | 35 | 28 | 26 | 33 | 27 | 36 | 45 | 224 | 37 | 27 | 25 | 32 |
| 29 | 34 | 25 | 29 | 30 | ------ | 36 | 80 | 139 | 36 | 26 | 25 | 39 |
| 30 | 33 | 26 | 58 | 28 | ------ | 36 | 130 | 69 | 35 | 28 | 25 | 41 |
| 31 | 34 | ------ | 60 | 28 | ------ | 35 | ------ | 58 | ------ | 27 | 27 | ------ |
| TOTAL | 1,135 | 981 | 766 | 1,356 | 994 | 2,457 | 2,262 | 2,656 | 1,296 | 890 | 904 | 974 |
| MEAN | 36.6 | 32.7 | 24.7 | 43.7 | 35.5 | 79.3 | 75.4 | 85.7 | 43.2 | 28.7 | 29.2 | 32.5 |
| MAX | 122 | 57 | 60 | 192 | 141 | 458 | 260 | 224 | 62 | 34 | 64 | 67 |
| MIN | 24 | 25 | 19 | 23 | 26 | 35 | 40 | 46 | 34 | 26 | 24 | 26 |
| CFSM | .82 | .73 | .55 | .97 | .79 | 1.77 | 1.68 | 1.91 | .96 | .64 | .65 | .72 |
| IN. | .94 | .81 | .63 | 1.12 | .82 | 2.04 | 1.87 | 2.20 | 1.07 | .74 | .75 | .81 |

CAL YR 1972 TOTAL 11,519 MEAN 31.5 MAX 213 MIN 17 CFSM .70 IN 9.54
WTR YR 1973 TOTAL 16,671 MEAN 45.7 MAX 458 MIN 19 CFSM 1.02 IN 13.81

PEAK DISCHARGE (BASE, 110 $FT^3/S$)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-23 | 1800 | 5.12 | 129 | 4-21 | 0800 | 4.92 | 112 |
| 1-18 | 2300 | 5.88 | 228 | 4-30 | 0500 | 5.41 | 152 |
| 2- 2 | - | - | a160 | 5- 2 | 0600 | 5.83 | 196 |
| 3- 7 | 1300 | 7.54 | 586 | 5- 8 | 1100 | 5.88 | 202 |
| 3-11 | 1800 | 5.68 | 179 | 5-28 | 0200 | 6.37 | 274 |
| 3-14 | 0600 | 5.37 | 148 | | | | |

a About.

## 05404000 Wisconsin River near Wisconsin Dells, Wis.

LOCATION.--Lat 43°36'22", long 89°45'25", in NW¼ sec.14, T.13 N., R.6 E., Sauk County, on right bank 0.5 mi (0.8 km) downstream from Dell Creek and 3.0 mi (4.8 km) downstream from Wisconsin Dells.

DRAINAGE AREA.--7,830 mi² (20,300 km²), approximately.

PERIOD OF RECORD.--October 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 801.48 ft (244.291 m) above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1963, water-stage recorder at same site at datum 5.00 ft (1.524 m) higher.

AVERAGE DISCHARGE.--39 years, 6,819 ft³/s (193.1 m³/s).

EXTREMES.--Current year: Maximum discharge, 62,600 ft³/s (1,770 m³/s) Mar. 16, gage height, 20.70 ft (6.309 m); minimum daily, 3,510 ft³/s (99.4 m³/s) Aug. 6.
Period of record: Maximum discharge, 72,200 ft³/s (2,040 m³/s) Sept. 14, 1938, gage height, 23.83 ft (7.263 m), present datum; minimum daily, 1,060 ft³/s (30.0 m³/s) Aug. 19, 1936.

REMARKS.--Records good. Flow regulated by 23 reservoirs above station (see p.137). In 1938, when the maximum of record occurred, there were 21 reservoirs above station, the two large reservoirs, Petenwell and Castle Rock, not in existence. Diurnal fluctuation caused by powerplant of Wisconsin Power and Light Co. at Wisconsin Dells, which shuts down frequently to 1,000 KWH, about 660 ft³/s (18.7 m³/s), from powerplant records.

REVISIONS (WATER YEARS).--WSP 1728: 1936(m). WSP 1914: 1951, 1953-55.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 3-5, Dec. 8 to Feb. 11.)

| | | | |
|---|---|---|---|
| 5.0 | 2,750 | 15.0 | 33,500 |
| 7.0 | 7,180 | 18.0 | 47,300 |
| 9.0 | 12,200 | 21.0 | 64,500 |
| 12.0 | 21,300 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 41,600 | 11,300 | 6,410 | 7,000 | 7,200 | 7,600 | 11,400 | 15,400 | 27,600 | 6,780 | 4,200 | 5,340 |
| 2 | 40,000 | 10,600 | 6,410 | 7,000 | 7,300 | 7,800 | 12,100 | 23,000 | 23,000 | 6,550 | 4,240 | 4,990 |
| 3 | 29,900 | 13,800 | 6,000 | 7,000 | 7,300 | 8,000 | 13,000 | 25,000 | 17,500 | 5,790 | 4,090 | 5,580 |
| 4 | 25,100 | 21,900 | 5,800 | 7,000 | 7,200 | 8,200 | 15,100 | 45,000 | 15,900 | 6,430 | 3,930 | 5,790 |
| 5 | 18,000 | 24,300 | 5,600 | 7,400 | 7,200 | 8,360 | 19,600 | 48,000 | 15,500 | 5,770 | 3,930 | 5,860 |
| 6 | 16,400 | 21,000 | 5,520 | 7,600 | 7,300 | 8,720 | 17,200 | 45,000 | 17,400 | 5,680 | 3,510 | 5,860 |
| 7 | 17,800 | 21,300 | 5,210 | 7,700 | 7,300 | 11,000 | 14,100 | 42,800 | 16,900 | 6,040 | 4,440 | 5,540 |
| 8 | 15,100 | 20,000 | 5,200 | 7,800 | 7,300 | 16,200 | 14,500 | 42,000 | 13,800 | 5,270 | 4,990 | 5,540 |
| 9 | 12,500 | 19,000 | 5,400 | 7,800 | 7,300 | 30,600 | 15,100 | 37,400 | 11,800 | 5,540 | 5,360 | 4,750 |
| 10 | 9,950 | 17,900 | 5,400 | 7,800 | 7,400 | 34,900 | 16,500 | 33,500 | 11,600 | 5,700 | 5,360 | 4,500 |
| 11 | 10,200 | 15,400 | 5,600 | 8,000 | 7,200 | 39,000 | 16,200 | 31,700 | 10,300 | 5,680 | 4,940 | 5,050 |
| 12 | 10,700 | 14,100 | 5,600 | 8,000 | 7,200 | 43,500 | 12,800 | 30,400 | 13,000 | 5,490 | 4,970 | 4,970 |
| 13 | 10,300 | 11,800 | 5,700 | 7,900 | 7,040 | 43,600 | 12,500 | 30,600 | 13,300 | 5,410 | 4,640 | 4,330 |
| 14 | 9,420 | 11,700 | 5,700 | 7,700 | 7,010 | 47,500 | 13,200 | 25,100 | 13,400 | 5,520 | 4,350 | 4,590 |
| 15 | 8,850 | 11,400 | 5,600 | 7,700 | 6,890 | 56,300 | 14,900 | 18,200 | 14,200 | 5,300 | 4,330 | 4,350 |
| 16 | 8,450 | 10,300 | 5,400 | 7,600 | 6,960 | 61,900 | 27,000 | 17,000 | 14,200 | 5,030 | 4,420 | 4,020 |
| 17 | 7,680 | 9,700 | 5,600 | 7,400 | 6,780 | 61,500 | 44,200 | 15,800 | 13,700 | 5,300 | 4,170 | 3,840 |
| 18 | 7,230 | 9,220 | 5,600 | 7,400 | 6,960 | 57,200 | 50,000 | 13,900 | 10,800 | 5,450 | 3,950 | 4,040 |
| 19 | 7,810 | 8,260 | 5,800 | 7,400 | 7,010 | 46,300 | 54,000 | 13,400 | 11,000 | 4,900 | 3,980 | 4,090 |
| 20 | 6,600 | 7,900 | 6,000 | 7,400 | 7,180 | 32,500 | 54,000 | 12,300 | 9,370 | 4,370 | 4,640 | 4,110 |
| 21 | 6,320 | 7,660 | 6,100 | 7,400 | 7,080 | 24,400 | 48,500 | 11,500 | 9,420 | 4,000 | 4,830 | 4,090 |
| 22 | 6,620 | 7,520 | 6,200 | 7,400 | 7,400 | 15,500 | 37,800 | 12,000 | 8,720 | 3,700 | 4,370 | 4,350 |
| 23 | 9,270 | 7,370 | 6,100 | 7,400 | 7,520 | 14,300 | 29,800 | 12,600 | 8,330 | 3,630 | 4,770 | 3,740 |
| 24 | 14,600 | 6,850 | 6,000 | 7,200 | 7,400 | 16,000 | 25,400 | 11,100 | 8,210 | 4,090 | 4,700 | 3,760 |
| 25 | 15,200 | 6,620 | 5,800 | 7,200 | 7,400 | 14,900 | 18,400 | 14,100 | 7,680 | 3,840 | 4,970 | 4,460 |
| 26 | 17,300 | 6,550 | 5,600 | 7,400 | 7,400 | 13,400 | 14,500 | 21,200 | 7,250 | 4,610 | 4,900 | 4,390 |
| 27 | 15,600 | 6,550 | 5,800 | 7,400 | 7,400 | 13,000 | 14,700 | 25,400 | 7,110 | 4,130 | 4,990 | 5,030 |
| 28 | 12,300 | 6,660 | 6,200 | 7,200 | 7,600 | 13,400 | 14,600 | 33,800 | 7,060 | 4,350 | 5,230 | 5,160 |
| 29 | 12,500 | 6,500 | 6,400 | 7,200 | ------ | 13,400 | 13,600 | 39,100 | 7,300 | 3,630 | 5,470 | 5,630 |
| 30 | 11,000 | 6,410 | 6,800 | 7,200 | ------ | 13,200 | 12,800 | 36,500 | 7,180 | 3,870 | 5,810 | 5,520 |
| 31 | 11,700 | ------ | 6,800 | 7,200 | ------ | 12,000 | ------ | 32,800 | ------ | 4,310 | 6,110 | ------ |
| TOTAL | 445,200 | 359,570 | 181,350 | 230,800 | 202,230 | 794,180 | 677,500 | 825,600 | 372,530 | 156,160 | 144,590 | 143,270 |
| MEAN | 14,360 | 11,990 | 5,850 | 7,445 | 7,223 | 25,620 | 22,580 | 26,630 | 12,420 | 5,037 | 4,664 | 4,776 |
| MAX | 41,600 | 24,300 | 6,800 | 8,000 | 7,600 | 61,900 | 54,000 | 48,000 | 27,600 | 6,780 | 6,110 | 5,860 |
| MIN | 6,320 | 6,410 | 5,200 | 7,000 | 6,780 | 7,600 | 11,400 | 11,100 | 7,060 | 3,630 | 3,510 | 3,740 |

CAL YR 1972 TOTAL 3,310,770 MEAN 9,046 MAX 43,200 MIN 2,980
WTR YR 1973 TOTAL 4,532,980 MEAN 12,420 MAX 61,900 MIN 3,510

## 05404500 Devils Lake near Baraboo, Wis.

LOCATION.--Lat 43°25'18", long 89°43'38", in NW¼ NE¼ sec.24, T.11 N., R.6 E., Sauk County, in Devils Lake State Park, 3.5 mi (5.6 km) south of Baraboo.

DRAINAGE AREA.--5.64 $mi^2$ (14.61 $km^2$). Area of Devils Lake, 361 acres (1.46 $km^2$).

PERIOD OF RECORD.--June 1922 to August 1930, June to August 1932, June 1934 to current year (fragmentary).

GAGE.--Nonrecording gage. Elevation of lake from reference mark read about twice a week except in winter. Datum of gage is 956.39 ft (291.508 m) above mean sea level, unadjusted.

EXTREMES.--Current year: Maximum gage height observed, 12.40 ft (3.780 m) May 31, June 1; minimum observed, 7.19 ft (2.192 m) Oct. 18.

Period of record: Maximum gage height observed, 12.40 ft (3.780 m) May 31, June 1, 1973; minimum observed, 1.49 ft (0.454 m) Feb. 8, 1965.

REMARKS.--Lake has no surface outlet. Lake was ice covered Dec. 7 to Mar. 17. Add 955.00 ft (291.084 m) to obtain elevation above mean sea level.

COOPERATION.--Observer services furnished by Ralph T. Tuttle, custodian, Devils Lake State Park.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | 7.35 | | | 8.15 | | 11.48 | 12.40 | 11.72 | 11.07 | 10.54 |
| 2 | | 7.43 | | | 8.17 | | | | | | | |
| 3 | | | | | | | 9.85 | 11.76 | | | | 10.52 |
| 4 | | | | | | | | 11.86 | 12.34 | | | |
| 5 | 7.37 | | | | | | | | | 11.60 | | 10.36 |
| 6 | | 7.45 | | | | 8.13 | 9.97 | | 12.38 | | | |
| 7 | | | | | | 8.63 | | 11.96 | | | 10.90 | |
| 8 | | | | | 8.17 | 8.69 | | | | | | 10.30 |
| 9 | | | | 7.50 | | 8.75 | | 12.08 | | 11.48 | | |
| 10 | | | | | | | | 12.14 | | 11.66 | | 10.28 |
| 11 | 7.25 | | | | | | | | | | 10.84 | |
| 12 | | | | | | 9.25 | 10.09 | | 12.22 | | | |
| 13 | | | | | | | 10.33 | | | 11.48 | | |
| 14 | | | 7.33 | | | 9.55 | | 12.22 | | | 10.78 | 10.16 |
| 15 | | 7.47 | | | 8.15 | 9.65 | | | | | | |
| 16 | | | | | | 9.75 | 10.53 | | | 11.47 | 10.74 | 10.12 |
| 17 | | | | 7.47 | | | | | | | | |
| 18 | 7.19 | | | | | | 10.91 | 12.18 | 12.10 | | | 10.08 |
| 19 | | | | 7.79 | | | | 12.16 | | | | |
| 20 | | | | | | 9.77 | 11.10 | | | 11.26 | 10.64 | |
| 21 | | 7.41 | | | | | | 12.14 | | | | 10.02 |
| 22 | | | | 7.89 | 8.15 | | | | | | | |
| 23 | 7.31 | | | | | | | | 11.98 | | | 9.94 |
| 24 | 7.39 | | | | | | | | | | | |
| 25 | | | | 7.91 | | | | | 11.92 | | 10.58 | |
| 26 | | | | | | | | | | 11.20 | | |
| 27 | | | | | | | 11.18 | | | | 10.56 | 9.94 |
| 28 | | | | | | 9.73 | | 12.32 | | | | |
| 29 | | | | | ------ | | | | 11.76 | | | |
| 30 | | | | | ------ | | 11.31 | | | 11.17 | | 9.90 |
| 31 | | ------ | | | ------ | 9.71 | ------ | 12.48 | ------ | | | ------ |

## 05405000 Baraboo River near Baraboo, Wis.

LOCATION.--Lat 43°28'51", long 89°38'09", in NW¼ sec.35, T.12 N., R.7 E., Sauk County, on left bank 50 ft (15 m) downstream from highway bridge, 0.3 mi (0.5 km) downstream from Rowley Creek and 5.3 mi (8.5 km) east of Baraboo.

DRAINAGE AREA.--600 $mi^2$ (1,554 $km^2$).

PERIOD OF RECORD.--December 1913 to March 1922. September 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 788.21 ft (240.246 m) above mean sea level. Dec. 18, 1913, to Mar. 31, 1922, nonrecording gage at bridge 2.3 mi (3.7 km) upstream at datum 7.6 ft (2.32 m) higher. Sept. 24, 1942, to June 10, 1963, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--38 years (1914-21, 1942-current year), 370 $ft^3/s$ (10.5 $m^3/s$), 8.37 in/yr (213 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,310 $ft^3/s$ (122 $m^3/s$) Apr. 19, gage height, 20.06 ft (6.114 m); minimum daily, 160 $ft^3/s$ (4.53 $m^3/s$) Dec. 11-19.

Period of record: Maximum discharge observed, 7,900 $ft^3/s$ (224 $m^3/s$) Mar. 26, 1917, gage height, 17.5 ft (5.33 m), estimated, site and datum then in use, from rating curve extended above 6,000 $ft^3/s$ (170 $m^3/s$); minimum observed, 9 $ft^3/s$ (0.25 $m^3/s$) Feb. 17, 1944, gage height, 5.08 ft (1.548 m); minimum daily, 26 $ft^3/s$ (0.74 $m^3/s$) Oct. 6, 1950.

Flood of Aug. 6, 1935, reached a stage of 15.8 ft (4.82 m) from floodmarks, site and datum in use in 1922, discharge, 5,100 $ft^3/s$ (144 $m^3/s$).

REMARKS.--Records good except those for winter periods, which are fair. Diurnal fluctuation from several powerplants at Baraboo.

REVISIONS (WATER YEARS).--WSP 455: 1915. WSP 505: 1917(M). WSP 1438: 1914-15(M), 1916-17, 1918-20(M), 1944(M), 1949(M). WSP 1728: Drainage area. WSP 1914: 1948, 1950, 1956.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used June 11 to Sept. 6; stage-discharge relation affected by ice Dec. 4 to Jan. 21, Jan. 29-31, Feb. 9-11, 15-22.)

| | | | |
|---|---|---|---|
| 6.6 | 146 | 14.0 | 2,050 |
| 8.0 | 436 | 16.0 | 2,750 |
| 10.0 | 925 | 18.0 | 3,490 |
| 12.0 | 1,440 | 20.0 | 4,290 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,080 | 458 | 284 | 500 | 528 | 378 | 406 | 1,600 | 1,880 | 406 | 359 | 336 |
| 2 | 2,500 | 508 | 252 | 780 | 1,070 | 605 | 653 | 2,410 | 1,840 | 399 | 341 | 334 |
| 3 | 2,480 | 673 | 232 | 740 | 1,210 | 783 | 825 | 2,400 | 1,600 | 380 | 320 | 355 |
| 4 | 2,000 | 763 | 220 | 700 | 1,090 | 885 | 870 | 2,230 | 1,300 | 374 | 383 | 454 |
| 5 | 1,380 | 768 | 210 | 660 | 1,040 | 930 | 893 | 2,100 | 1,100 | 294 | 294 | 610 |
| 6 | 850 | 680 | 200 | 580 | 943 | 885 | 805 | 2,030 | 1,000 | 359 | 288 | 623 |
| 7 | 519 | 585 | 190 | 450 | 685 | 1,700 | 695 | 2,000 | 875 | 341 | 286 | 458 |
| 8 | 436 | 543 | 180 | 320 | 508 | 1,800 | 600 | 2,320 | 870 | 334 | 292 | 357 |
| 9 | 397 | 533 | 170 | 290 | 430 | 2,000 | 573 | 2,340 | 793 | 374 | 328 | 336 |
| 10 | 368 | 521 | 170 | 270 | 390 | 2,280 | 545 | 2,190 | 653 | 366 | 374 | 359 |
| 11 | 349 | 485 | 160 | 260 | 340 | 2,670 | 520 | 2,300 | 545 | 336 | 410 | 320 |
| 12 | 334 | 440 | 160 | 250 | 313 | 2,940 | 480 | 2,340 | 510 | 334 | 391 | 311 |
| 13 | 334 | 412 | 160 | 250 | 286 | 2,710 | 460 | 2,060 | 492 | 320 | 345 | 311 |
| 14 | 349 | 399 | 160 | 240 | 280 | 2,740 | 948 | 1,600 | 487 | 317 | 313 | 305 |
| 15 | 349 | 328 | 160 | 240 | 260 | 3,000 | 1,800 | 1,200 | 476 | 311 | 307 | 301 |
| 16 | 326 | 359 | 160 | 250 | 250 | 2,900 | 2,500 | 960 | 476 | 307 | 301 | 292 |
| 17 | 311 | 345 | 160 | 350 | 240 | 2,610 | 3,500 | 800 | 476 | 303 | 309 | 303 |
| 18 | 307 | 332 | 160 | 700 | 240 | 2,290 | 4,210 | 660 | 485 | 301 | 305 | 311 |
| 19 | 305 | 328 | 160 | 1,800 | 240 | 1,940 | 4,260 | 580 | 498 | 296 | 294 | 320 |
| 20 | 299 | 322 | 170 | 1,900 | 240 | 1,560 | 4,220 | 520 | 510 | 296 | 290 | 324 |
| 21 | 311 | 313 | 170 | 1,700 | 250 | 1,160 | 3,850 | 480 | 496 | 296 | 286 | 317 |
| 22 | 391 | 311 | 180 | 1,470 | 260 | 830 | 3,230 | 450 | 458 | 322 | 286 | 332 |
| 23 | 985 | 309 | 180 | 1,390 | 273 | 633 | 2,560 | 460 | 445 | 351 | 336 | 451 |
| 24 | 1,330 | 303 | 190 | 1,160 | 296 | 543 | 2,100 | 500 | 418 | 334 | 414 | 508 |
| 25 | 1,250 | 299 | 190 | 740 | 317 | 501 | 1,800 | 640 | 412 | 322 | 515 | 478 |
| 26 | 1,210 | 307 | 190 | 536 | 296 | 476 | 1,400 | 800 | 410 | 332 | 565 | 406 |
| 27 | 1,220 | 317 | 190 | 524 | 284 | 449 | 1,100 | 1,400 | 406 | 338 | 505 | 397 |
| 28 | 1,180 | 322 | 200 | 526 | 265 | 423 | 960 | 1,950 | 406 | 334 | 391 | 484 |
| 29 | 963 | 322 | 200 | 500 | ------ | 401 | 800 | 2,040 | 406 | 336 | 338 | 380 |
| 30 | 653 | 305 | 230 | 440 | ------ | 385 | 900 | 1,880 | 406 | 389 | 322 | 362 |
| 31 | 498 | ------ | 370 | 400 | ------ | 370 | ------ | 1,810 | ------ | 393 | 328 | ------ |
| TOTAL | 26,104 | 12,890 | 6,008 | 20,924 | 12,824 | 43,697 | 48,463 | 47,050 | 21,129 | 10,503 | 10,736 | 11,355 |
| MEAN | 842 | 430 | 194 | 675 | 458 | 1,410 | 1,615 | 1,518 | 704 | 339 | 346 | 379 |
| MAX | 2,500 | 768 | 370 | 1,900 | 1,210 | 3,000 | 4,260 | 2,410 | 1,880 | 406 | 565 | 623 |
| MIN | 299 | 299 | 160 | 240 | 240 | 370 | 406 | 450 | 406 | 294 | 286 | 292 |
| CFSM | 1.40 | .72 | .32 | 1.13 | .76 | 2.35 | 2.69 | 2.53 | 1.17 | .57 | .58 | .63 |
| IN. | 1.62 | .80 | .37 | 1.30 | .80 | 2.71 | 3.00 | 2.92 | 1.31 | .65 | .67 | .70 |

CAL YR 1972 TOTAL 168,947 MEAN 462 MAX 3,280 MIN 124 CFSM .77 IN 10.47
WTR YR 1973 TOTAL 271,683 MEAN 744 MAX 4,260 MIN 160 CFSM 1.24 IN 16.84

## 05406050 Fish Lake near Sauk City, Wis.

LOCATION.--Lat 43°17'02", long 89°39'15", in NE¼ SW¼ sec.3, T.9 N., R.7 E., Dane County, on south side of lake near Ganser's Tavern and Dance Hall, 0.4 mi (0.6 km) southwest of Crystal Lake, and 3.1 mi (5.0 km) east of Sauk City.

DRAINAGE AREA.--3.79 mi² (9.82 km²). Area of Fish Lake, 252 acres (1.02 km²).

PERIOD OF RECORD.--November 1966 to current year (fragmentary).

GAGE.--Nonrecording gage in lake bed. Altitude of gage is 853 ft (260 m), from topographic map.

EXTREMES.--Current year: Maximum gage height observed, 5.81 ft (1.771 m) June 2; minimum observed, 3.76 ft (1.146 m) Oct. 16.

Period of record: Maximum gage height observed, 5.81 ft (1.771 m) June 2, 1973; minimum observed, 3.02 ft (0.920 m) Aug. 29, 1970.

REMARKS.--Lake has no surface outlet. Lake ice covered Nov. 18 to Apr. 12.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | 5.81 | | | 5.50 |
| 2 | | | | | | | | | | | | |
| 3 | | | | | | | | | 5.79 | | 5.42 | |
| 4 | | 3.92 | | | | | | 5.55 | | | | |
| 5 | | | | | | | | | 5.78 | 5.50 | | |
| 6 | | | | | | | | | | | | 5.52 |
| 7 | 3.85 | | | | | | | | | | | |
| 8 | | | | | | | | | 5.75 | | | |
| 9 | | | | | | | | | | | | |
| 10 | | | | | | | | 5.71 | | | 5.48 | |
| 11 | | 3.92 | | 4.11 | | | | | | | | |
| 12 | | | | | | | 5.11 | | | 5.48 | | |
| 13 | | | | | | | | | | | | |
| 14 | 3.81 | | | | | | | | | | | 5.47 |
| 15 | | | | | | | | | 5.71 | | | |
| 16 | 3.76 | | | | | | | | | | | |
| 17 | | | | | | | | | | | 5.54 | |
| 18 | | 3.86 | | | | | | 5.65 | | | | |
| 19 | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | |
| 21 | 3.83 | | | | | | 5.19 | | | 5.39 | | |
| 22 | | | | | | | | | | | | 5.45 |
| 23 | | | | | | | | | 5.66 | | | |
| 24 | | | | | | | | | | | 5.56 | |
| 25 | | | | | | | | | | | 5.54 | |
| 26 | | | | | | | | 5.67 | | | | |
| 27 | | | | | | | | | | | | |
| 28 | 3.87 | | | | 4.41 | | 5.27 | | | 5.45 | | 5.47 |
| 29 | | | | | ------ | | | | 5.56 | | | |
| 30 | | | | | ------ | | | | ------ | | | ------ |
| 31 | | ------ | | | ------ | | ------ | | | | | |

## 05406500 Black Earth Creek at Black Earth, Wis.

LOCATION.--Lat 43°08'03", long 89°43'56", in SW¼ sec.25, T.8 N., R.6 E., Dane County, on right bank, 0.8 mi (1.3 km) east of Black Earth and 2.1 mi (3.4 km) upstream from Vermont Creek.

DRAINAGE AREA.--46.4 $mi^2$ (120.2 $km^2$), includes 3.6 $mi^2$ (9.3 $km^2$) without surface drainage.

PERIOD OF RECORD.--February 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 812.95 ft (247.787 m) above mean sea level.

AVERAGE DISCHARGE.--19 years. 29.5 $ft^3/s$ (0.835 $m^3/s$), 8.36 in/yr (212 mm/yr).

EXTREMES.--Current year: Maximum discharge, 577 $ft^3/s$ (16.3 $m^3/s$) Mar. 7, gage height, 4.87 ft (1.484 m); minimum daily, 16 $ft^3/s$ (0.45 $m^3/s$) Dec. 13-18.
Period of record: Maximum discharge, 1,750 $ft^3/s$ (49.6 $m^3/s$) July 3, 1954, gage height, 6.58 ft (2.006 m); minimum, 4.8 $ft^3/s$ (0.14 $m^3/s$) Nov. 29, 1958, gage height, 1.39 ft (0.424 m), result of freezeup.

REMARKS.--Records good.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Oct. 1 to Dec. 13, Sept. 8-30; stage-discharge relation affected by ice Dec. 5-8, 11, 12, 14-20.

| | | | |
|---|---|---|---|
| 1.6 | 12 | 3.0 | 169 |
| 1.8 | 26 | 3.5 | 256 |
| 2.0 | 43 | 4.0 | 360 |
| 2.5 | 96 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 31 | 32 | 28 | 35 | 120 | 96 | 47 | 100 | 60 | 43 | 40 | 36 |
| 2 | 30 | 36 | 28 | 30 | 140 | 117 | 56 | 264 | 58 | 42 | 40 | 39 |
| 3 | 29 | 35 | 27 | 30 | 48 | 95 | 53 | 112 | 58 | 42 | 40 | 41 |
| 4 | 30 | 35 | 25 | 29 | 39 | 52 | 49 | 93 | 57 | 43 | 40 | 44 |
| 5 | 29 | 33 | 24 | 27 | 37 | 40 | 47 | 83 | 57 | 42 | 39 | 48 |
| 6 | 29 | 32 | 23 | 25 | 34 | 54 | 44 | 81 | 55 | 41 | 39 | 41 |
| 7 | 29 | 34 | 21 | 25 | 33 | 351 | 44 | 125 | 54 | 40 | 39 | 38 |
| 8 | 28 | 34 | 20 | 24 | 32 | 84 | 44 | 194 | 53 | 40 | 41 | 38 |
| 9 | 28 | 33 | 18 | 24 | 30 | 61 | 43 | 122 | 52 | 41 | 47 | 42 |
| 10 | 28 | 33 | 17 | 25 | 29 | 59 | 44 | 99 | 50 | 43 | 42 | 41 |
| 11 | 28 | 32 | 17 | 25 | 29 | 104 | 46 | 88 | 49 | 40 | 39 | 39 |
| 12 | 28 | 32 | 17 | 24 | 28 | 68 | 49 | 83 | 51 | 39 | 39 | 39 |
| 13 | 28 | 32 | 16 | 24 | 28 | 59 | 58 | 78 | 50 | 38 | 46 | 38 |
| 14 | 27 | 32 | 16 | 24 | 28 | 101 | 88 | 75 | 48 | 39 | 46 | 39 |
| 15 | 27 | 32 | 16 | 24 | 28 | 64 | 92 | 72 | 48 | 39 | 41 | 38 |
| 16 | 28 | 31 | 16 | 28 | 28 | 60 | 117 | 70 | 49 | 41 | 39 | 39 |
| 17 | 27 | 31 | 16 | 70 | 27 | 57 | 81 | 68 | 52 | 39 | 39 | 44 |
| 18 | 26 | 31 | 16 | 61 | 27 | 51 | 68 | 67 | 49 | 39 | 38 | 44 |
| 19 | 26 | 30 | 17 | 122 | 27 | 49 | 65 | 85 | 49 | 39 | 38 | 40 |
| 20 | 26 | 30 | 17 | 41 | 28 | 48 | 71 | 70 | 48 | 39 | 37 | 39 |
| 21 | 30 | 29 | 17 | 38 | 27 | 46 | 94 | 68 | 47 | 41 | 35 | 40 |
| 22 | 39 | 28 | 17 | 37 | 28 | 45 | 83 | 67 | 47 | 44 | 35 | 40 |
| 23 | 56 | 28 | 17 | 36 | 29 | 44 | 68 | 66 | 48 | 42 | 46 | 41 |
| 24 | 44 | 29 | 17 | 32 | 30 | 43 | 64 | 63 | 46 | 54 | 43 | 40 |
| 25 | 38 | 29 | 17 | 32 | 27 | 43 | 61 | 70 | 45 | 45 | 39 | 48 |
| 26 | 35 | 30 | 18 | 32 | 27 | 41 | 59 | 64 | 46 | 43 | 38 | 45 |
| 27 | 34 | 29 | 18 | 33 | 28 | 39 | 58 | 95 | 46 | 42 | 35 | 44 |
| 28 | 32 | 28 | 17 | 35 | 28 | 39 | 56 | 104 | 46 | 41 | 35 | 48 |
| 29 | 32 | 28 | 19 | 31 | ------ | 39 | 61 | 73 | 45 | 40 | 35 | 56 |
| 30 | 32 | 28 | 60 | 30 | ------ | 39 | 85 | 66 | 44 | 41 | 35 | 55 |
| 31 | 32 | ------ | 63 | 29 | ------ | 44 | ------ | 62 | ------ | 40 | 35 | ------ |
| TOTAL | 965 | 936 | 675 | 1,082 | 1,044 | 2,132 | 1,895 | 2,827 | 1,507 | 1,282 | 1,220 | 1,264 |
| MEAN | 31.1 | 31.2 | 21.8 | 34.9 | 37.3 | 68.8 | 63.2 | 91.2 | 50.2 | 41.4 | 39.4 | 42.1 |
| MAX | 55 | 36 | 63 | 122 | 140 | 351 | 117 | 264 | 60 | 54 | 47 | 56 |
| MIN | 26 | 28 | 16 | 24 | 27 | 39 | 43 | 62 | 44 | 38 | 35 | 36 |
| CFSM | .67 | .67 | .47 | .75 | .80 | 1.48 | 1.36 | 1.97 | 1.08 | .89 | .85 | .91 |
| IN. | .77 | .75 | .54 | .87 | .84 | 1.71 | 1.52 | 2.27 | 1.21 | 1.03 | .98 | 1.01 |

CAL YR 1972 TOTAL 38,803 MEAN 106 MAX 320 MIN 16 CFSM 2.28 IN 31.11
WTR YR 1973 TOTAL 16,829 MEAN 46.1 MAX 351 MIN 16 CFSM .99 IN 13.49

PEAK DISCHARGE (BASE, 200 $FT^3/S$)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 3-11-72 | 2100 | 3.30 | 219 | 3- 1-73 | 2200 | 3.46 | 250 |
| 5-17-72 | 2300 | 4.39 | 451 | 3- 7-73 | 1000 | 4.87 | 577 |
| 1-19-73 | 0500 | 3.31 | 221 | 5- 2-73 | 0900 | 4.16 | 396 |
| 2- 1-73 | 1900 | 3.53 | 262 | 5- 8-73 | 1400 | 3.61 | 278 |

## WISCONSIN RIVER BASIN

### 05406640 Otter Creek near Highland, Wis.

LOCATION.--Lat 43°01'42", long 90°16'38", in NE¼ sec.5, T.6 N., R.2 E., Iowa County, on left bank 50 ft (15 m) upstream from bridge on town road, 0.3 mi (0.5 km) downstream from recreation reservoir outlet, 0.4 mi (0.6 km) upstream from unnamed tributary, 2.2 mi (3.5 km) upstream from Flint Creek and 5.3 mi (8.5 km) southeast of Highland.

DRAINAGE AREA.--16.6 mi² (43.0 km²).

PERIOD OF RECORD.--May 1968 to June 1969, August 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 840 ft (256 m), from topographic map. Prior to August 1970 at site 100 ft (30 m) upstream.

EXTREMES.--Current year: Maximum discharge, 86 ft³/s (2.44 m³/s) Mar. 7, gage height, 2.10 ft (0.640 m); maximum gage height, 2.11 ft (0.643 m) Jan. 18; minimum daily, 4.7 ft³/s (0.13 m³/s) Oct. 10, 18, 19.
Period of record: Maximum discharge, 148 ft³/s (4.19 m³/s) Mar. 17, 1969, gage height, 3.72 ft (1.13 m); minimum, 0.07 ft³/s (0.002 m³/s) Aug. 27, 1970, gage height, 0.57 ft (0.174 m), result of shutdown of dam outlet.

REMARKS.--Records good. Flow regulated by Black Hawk Lake reservoir 0.3 mi (0.5 km) upstream. Pool surface area of reservoir is 222 acres (898,000 m²). Supplemental discharge measurements on Narvison Branch which enters Otter Creek 0.5 mi (0.8 km) downstream, are obtained to provide additional data for the drainage basin.

Narvison Branch discharge measurements (discharge in cubic feet per second and cubic meters per second)

| | | | |
|---|---|---|---|
| Nov. 3, 1972..... | 1.70 ft³/s (0.048 m³/s) | Jan. 29, 1973..... | 1.37 ft³/s (0.038 m³/s) |
| Dec. 13, 1972..... | 1.19 ft³/s (0.034 m³/s) | | |

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Feb. 13-19.)

| | | | |
|---|---|---|---|
| 1.1 | 4.4 | 1.6 | 37 |
| 1.2 | 10 | 1.8 | 52 |
| 1.4 | 23 | 2.1 | 87 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.8 | 8.5 | 7.2 | 37 | 45 | 16 | 17 | 43 | 24 | 14 | 11 | 10 |
| 2 | 5.4 | 11 | 7.2 | 26 | 67 | 25 | 18 | 54 | 24 | 15 | 10 | 9.5 |
| 3 | 5.4 | 11 | 7.2 | 21 | 43 | 27 | 18 | 52 | 31 | 17 | 10 | 10 |
| 4 | 5.4 | 10 | 6.9 | 18 | 30 | 23 | 18 | 45 | 28 | 18 | 10 | 10 |
| 5 | 5.4 | 9.0 | 6.9 | 15 | 22 | 19 | 18 | 46 | 26 | 17 | 10 | 9.5 |
| 6 | 5.8 | 9.0 | 6.9 | 13 | 18 | 22 | 16 | 37 | 24 | 16 | 10 | 8.5 |
| 7 | 5.8 | 9.5 | 6.5 | 11 | 14 | 77 | 16 | 41 | 22 | 15 | 10 | 8.0 |
| 8 | 5.4 | 9.0 | 6.5 | 9.0 | 13 | 54 | 15 | 42 | 21 | 14 | 11 | 8.5 |
| 9 | 5.1 | 8.5 | 6.9 | 8.5 | 12 | 36 | 20 | 40 | 19 | 14 | 12 | 11 |
| 10 | 5.7 | 8.5 | 6.9 | 7.6 | 11 | 30 | 19 | 36 | 18 | 16 | 12 | 11 |
| 11 | 5.6 | 8.0 | 6.9 | 7.2 | 9.5 | 43 | 18 | 33 | 18 | 15 | 12 | 9.5 |
| 12 | 5.6 | 8.0 | 8.0 | 6.9 | 9.0 | 37 | 18 | 32 | 18 | 14 | 11 | 9.0 |
| 13 | 5.8 | 8.0 | 8.0 | 6.5 | 9.0 | 31 | 19 | 30 | 18 | 13 | 11 | 9.0 |
| 14 | 5.8 | 8.0 | 7.6 | 5.4 | 9.0 | 43 | 22 | 29 | 17 | 12 | 11 | 9.0 |
| 15 | 5.6 | 7.6 | 7.6 | 5.8 | 9.0 | 40 | 26 | 27 | 17 | 12 | 10 | 8.5 |
| 16 | 5.6 | 7.6 | 7.6 | 6.5 | 9.0 | 34 | 48 | 26 | 22 | 12 | 10 | 8.5 |
| 17 | 5.1 | 7.6 | 7.2 | 22 | 8.5 | 30 | 51 | 25 | 28 | 12 | 10 | 11 |
| 18 | 5.7 | 7.2 | 6.9 | 42 | 8.5 | 26 | 45 | 25 | 24 | 11 | 9.5 | 11 |
| 19 | [illegible] | 7.2 | 6.2 | 70 | 8.0 | 23 | 40 | 26 | 22 | 11 | 10 | 10 |
| 20 | 5.1 | 7.2 | 6.5 | 44 | 8.0 | 21 | 41 | 25 | 19 | 11 | 9.5 | 9.5 |
| 21 | [illegible] | 7.2 | 6.5 | 31 | 7.6 | 19 | 46 | 24 | 18 | 11 | 9.0 | 9.0 |
| 22 | [illegible] | 7.2 | 6.5 | 24 | 7.6 | 18 | 42 | 24 | 17 | 14 | 9.0 | 9.5 |
| 23 | 16 | 7.2 | 6.5 | 20 | 9.0 | 18 | 37 | 24 | 18 | 14 | 12 | 9.0 |
| 24 | 15 | 7.2 | 6.5 | 16 | 11 | 17 | 33 | 24 | 18 | 14 | 12 | 8.5 |
| 25 | 14 | 7.6 | 6.2 | 16 | 10 | 16 | 31 | 24 | 17 | 14 | 12 | 11 |
| 26 | 13 | 8.0 | 6.2 | 16 | 9.0 | 16 | 29 | 23 | 18 | 14 | 12 | 11 |
| 27 | 12 | 8.0 | 6.2 | 19 | 8.5 | 15 | 26 | 27 | 19 | 13 | 12 | 11 |
| 28 | 11 | 7.6 | 6.2 | 25 | 8.5 | 15 | 25 | 35 | 17 | 12 | 12 | 10 |
| 29 | 9.5 | 7.2 | 6.9 | 18 | ------ | 14 | 27 | 32 | 16 | 12 | 11 | 11 |
| 30 | 9.0 | 7.2 | 30 | 15 | ------ | 14 | 39 | 29 | 15 | 12 | 10 | 11 |
| 31 | 8.5 | ------ | 56 | 13 | ------ | 15 | ------ | 26 | ------ | 11 | 10 | ------ |
| TOTAL | 231.9 | 244.8 | 293.3 | 595.4 | 433.7 | 834 | 838 | 1,088 | 613 | 420 | 331.0 | 292.0 |
| MEAN | 7.48 | 8.16 | 9.46 | 19.2 | 15.5 | 26.9 | 27.9 | 32.3 | 20.4 | 13.5 | 10.7 | 9.73 |
| MAX | 16 | 11 | 56 | 70 | 67 | 77 | 51 | 54 | 31 | 18 | 12 | 11 |
| MIN | 5.7 | 7.2 | 6.2 | 5.4 | 7.6 | 1[illegible] | 15 | 23 | 15 | 11 | 9.0 | 8.0 |

CAL YR 1972 TOTAL 2,671.2 MEAN 7.30 MAX 68 MIN 1.6
WTR YR 1973 TOTAL 6,127.1 MEAN 16.8 MAX 77 MIN 4.7

## 05407000 Wisconsin River at Muscoda, Wis.

LOCATION.--Lat 43°11'54", long 90°26'26", in NW¼ sec.1, T.8 N., R.1 W., Grant County, on left bank at bridge on State Highway 80, 0.5 mi (0.8 km) upstream from Eagle Mill Creek and 1.0 mi (1.6 km) north of Muscoda.

DRAINAGE AREA.--10,300 mi² (26,700 km²), approximately.

PERIOD OF RECORD.--December 1902 to December 1903, October 1913 to current year. Monthly discharge only for October and November 1913, published in WSP 1308. Gage-height records collected at same site November 1908 to December 1912 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 667.05 ft (230.32 m) above mean sea level. Prior to Nov. 22, 1929, nonrecording gage on bridge 200 ft (61 m) upstream at same datum. Nov. 22, 1929, to Mar. 15, 1930, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--60 years (1913-73), 8,617 ft³/s (244.0 m³/s).

EXTREMES.--Current year: Maximum discharge, 65,000 ft³/s (1,840 m³/s) Mar. 20, gage height, 10.36 ft (3.16 m); minimum, 4,790 ft³/s (136 m³/s) July 27, gage height, 0.62 ft (0.19 m); minimum daily, 5,160 ft³/s (146 m³/s) Aug. 6.

Period of record: Maximum discharge, 80,800 ft³/s (2,290 m³/s) Sept. 16, 1938, gage height, 11.48 ft (3.50 m); minimum daily, 2,000 ft³/s (56.6 m³/s) Feb. 11, 1918.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by 23 reservoirs and many powerplants above station (see p. 137). In 1938 when the maximum of record occurred, there were 21 reservoirs above station, the two large reservoirs, Petenwell and Castle Rock not yet in existence. Usually less than about 5 ft³/s (0.14 m³/s) was diverted out of basin through Portage canal to Fox River throughout the year.

REVISIONS (WATER YEARS).--WSP 785: 1921(m). WSP 875: 1921. WSP 1308: 1915(M), 1917-18(M), 1920-21(M), 1924(M).

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Oct. 1-7, Nov. 7-11; stage-discharge relation affected by ice Dec. 8 to Mar. 10.)

| Oct. 1 to Mar. 18 | | | | Mar. 19 to Sept. 30 | | | |
|---|---|---|---|---|---|---|---|
| 1.0 | 4,720 | 7.0 | 34,300 | 0.7 | 5,000 | 6.0 | 27,800 |
| 2.0 | 7,800 | 9.0 | 51,500 | 1.0 | 5,810 | 8.0 | 42,500 |
| 3.0 | 11,700 | 10.5 | 66,400 | 2.0 | 9,190 | 10.5 | 66,400 |
| 5.0 | 21,100 | | | 4.0 | 17,400 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 34,500 | 13,600 | 8,720 | 12,000 | 12,000 | 11,000 | 17,300 | 20,000 | 41,200 | 10,200 | 5,450 | 7,420 |
| 2 | 42,100 | 14,900 | 8,830 | 11,000 | 12,000 | 11,000 | 16,300 | 20,600 | 38,700 | 9,410 | 5,840 | 7,920 |
| 3 | 43,000 | 14,100 | 8,200 | 11,000 | 12,000 | 11,000 | 16,000 | 23,700 | 35,000 | 9,410 | 5,660 | 6,780 |
| 4 | 42,400 | 13,700 | 7,870 | 10,000 | 13,000 | 12,000 | 16,500 | 27,700 | 30,000 | 8,590 | 5,970 | 7,560 |
| 5 | 39,500 | 16,700 | 7,010 | 11,000 | 12,000 | 12,000 | 17,800 | 38,100 | 25,400 | 7,720 | 5,610 | 7,360 |
| 6 | 33,600 | 28,500 | 6,680 | 11,000 | 12,000 | 12,000 | 19,100 | 46,800 | 21,100 | 8,860 | 5,160 | 7,410 |
| 7 | 27,400 | 23,400 | 7,000 | 11,000 | 12,000 | 13,000 | 22,600 | 49,100 | 20,200 | 7,610 | 5,550 | 7,540 |
| 8 | 21,000 | 24,200 | 7,200 | 11,000 | 12,000 | 15,000 | 22,500 | 49,900 | 21,200 | 7,500 | 6,090 | 8,070 |
| 9 | 20,400 | 22,900 | 7,800 | 11,000 | 11,000 | 19,000 | 19,300 | 53,100 | 20,100 | 8,060 | 5,700 | 7,620 |
| 10 | 18,100 | 22,700 | 8,400 | 11,000 | 11,000 | 22,000 | 21,100 | 50,000 | 17,700 | 8,390 | 6,080 | 7,250 |
| 11 | 15,400 | 21,500 | 8,800 | 11,000 | 11,000 | 29,700 | 18,900 | 47,000 | 15,400 | 8,390 | 7,030 | 6,190 |
| 12 | 14,300 | 20,300 | 8,800 | 10,000 | 10,000 | 40,100 | 20,500 | 41,300 | 15,500 | 7,820 | 7,000 | 6,380 |
| 13 | 13,600 | 17,900 | 8,600 | 10,000 | 10,000 | 46,600 | 19,600 | 38,100 | 15,000 | 7,370 | 6,500 | 6,470 |
| 14 | 12,900 | 17,200 | 9,200 | 9,800 | 9,800 | 47,500 | 17,400 | 36,500 | 16,000 | 7,090 | 6,500 | 6,660 |
| 15 | 13,000 | 14,000 | 9,400 | 9,600 | 9,600 | 51,000 | 17,300 | 34,500 | 16,700 | 7,030 | 6,840 | 6,170 |
| 16 | 11,500 | 13,600 | 9,000 | 9,400 | 9,200 | 53,500 | 21,200 | 32,000 | 16,500 | 7,300 | 6,180 | 5,540 |
| 17 | 11,500 | 13,600 | 8,800 | 9,600 | 9,200 | 57,100 | 25,500 | 25,900 | 17,600 | 6,370 | 5,940 | 6,400 |
| 18 | 10,500 | 13,200 | 8,800 | 11,000 | 9,600 | 63,000 | 29,500 | 23,000 | 17,800 | 6,610 | 5,940 | 6,400 |
| 19 | 10,200 | 11,700 | 9,000 | 12,000 | 10,000 | 64,600 | 41,000 | 20,400 | 16,400 | 6,940 | 6,100 | 5,570 |
| 20 | 9,430 | 11,600 | 9,200 | 13,000 | 10,000 | 63,500 | 52,100 | 19,500 | 14,800 | 6,930 | 5,310 | 6,010 |
| 21 | 9,360 | 10,900 | 9,400 | 13,000 | 11,000 | 56,200 | 58,300 | 17,900 | 13,900 | 6,920 | 5,720 | 5,510 |
| 22 | 10,300 | 9,780 | 9,600 | 13,000 | 11,000 | 45,500 | 59,000 | 16,200 | 12,700 | 6,850 | 5,940 | 6,240 |
| 23 | 11,400 | 10,100 | 9,800 | 13,000 | 11,000 | 34,000 | 57,700 | 16,000 | 12,400 | 5,650 | 6,900 | 5,510 |
| 24 | 12,000 | 9,470 | 9,400 | 12,000 | 10,000 | 24,000 | 46,600 | 16,000 | 12,000 | 5,770 | 6,780 | 6,430 |
| 25 | 13,300 | 9,900 | 9,000 | 12,000 | 10,000 | 20,700 | 40,800 | 16,400 | 11,000 | 5,790 | 6,970 | 5,950 |
| 26 | 17,000 | 9,510 | 8,800 | 12,000 | 10,000 | 20,000 | 33,200 | 16,000 | 10,800 | 6,380 | 6,120 | 6,150 |
| 27 | 17,900 | 8,860 | 8,800 | 13,000 | 11,000 | 18,400 | 27,500 | 18,600 | 10,500 | 5,520 | 6,840 | 6,330 |
| 28 | 19,600 | 9,090 | 9,000 | 13,000 | 11,000 | 17,200 | 21,500 | 24,200 | 9,640 | 6,340 | 7,070 | 6,450 |
| 29 | 18,000 | 8,900 | 9,600 | 13,000 | ------ | 17,000 | 20,300 | 29,400 | 9,830 | 6,030 | 6,300 | 7,320 |
| 30 | 15,700 | 8,830 | 10,000 | 12,000 | ------ | 17,100 | 20,600 | 32,400 | 9,260 | 6,260 | 6,620 | 7,720 |
| 31 | 14,900 | ------ | 11,000 | 12,000 | ------ | 16,900 | ------ | 38,600 | ------ | 5,950 | 6,940 | ------ |
| TOTAL | 683,190 | 436,720 | 271,710 | 353,400 | 302,400 | 942,400 | 837,000 | 939,700 | 544,330 | 225,060 | 193,620 | 200,330 |
| MEAN | 19,460 | 14,560 | 8,765 | 11,400 | 10,800 | 30,400 | 27,900 | 30,310 | 18,140 | 7,260 | 6,246 | 6,678 |
| MAX | 43,000 | 24,200 | 11,000 | 13,000 | 13,000 | 64,600 | 59,000 | 53,100 | 41,200 | 10,200 | 7,070 | 8,070 |
| MIN | 9,360 | 8,830 | 6,680 | 9,400 | 9,200 | 11,000 | 16,000 | 16,000 | 9,260 | 5,520 | 5,160 | 5,510 |

CAL YR 1972 TOTAL 4,195,490 MEAN 11,460 MAX 47,700 MIN 4,090
WTR YR 1973 TOTAL 5,849,860 MEAN 16,030 MAX 64,600 MIN 5,160

## 05408000 Kickapoo River at La Farge, Wis.

LOCATION.--Lat 43°34'27", long 90°38'35", on east-west quarter section line in W½ sec.29, T.13 N., R.2 W., Vernon County, on left bank 10 ft (3 m) upstream from bridge on State Highway 82, in La Farge, 0.3 mi (0.5 km) upstream from Otter Creek, and 1.3 mi (2.1 km) downstream from powerplant.

DRAINAGE AREA.--266 mi² (689 km²).

PERIOD OF RECORD.--October 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 782.00 ft (238.354 m) above mean sea level, adjustment of 1912. Prior to Dec. 4, 1939, nonrecording gage on highway bridge at same datum.

AVERAGE DISCHARGE.--35 years, 169 ft³/s (4.786 m³/s), 8.63 in/yr (219 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,670 ft³/s (132 m³/s) Apr. 16, gage height, 11.92 ft (3.633 m); minimum daily, 120 ft³/s (3.40 m³/s) Dec. 7, Jan. 6, 29, Feb. 16.
Period of record: Maximum discharge, 9,910 ft³/s (281 m³/s) Feb. 9, 1966, gage height, 13.67 ft (4.167 m); minimum, 1.8 ft³/s (0.051 m) Mar. 24, 1951; minimum daily, 56 ft³/s (1.02 m³/s) Nov. 3, 1939.

REMARKS.--Records good except those for winter months, which are fair. Considerable diurnal fluctuation caused by operation of powerplant 1.3 mi (2.1 km) upstream. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1388: 1951(M), 1954(M). WSP 1438: 1944-45(M), 1946, 1948, 1950(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice, Dec. 2 to Mar. 2.)

| | | | |
|---|---|---|---|
| 2.0 | 112 | 6.0 | 917 |
| 3.0 | 257 | 8.0 | 1,500 |
| 4.0 | 448 | 10.0 | 2,250 |
| 5.0 | 662 | 12.0 | 4,880 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 284 | 240 | 142 | 200 | 250 | 200 | 259 | 854 | 351 | 209 | 177 | 166 |
| 2 | 245 | 293 | 140 | 140 | 560 | 450 | 271 | 1,400 | 325 | 218 | 169 | 171 |
| 3 | 220 | 241 | 140 | 200 | 230 | 381 | 221 | 1,080 | 384 | 210 | 160 | 209 |
| 4 | 206 | 218 | 130 | 150 | 190 | 351 | 233 | 582 | 355 | 190 | 163 | 188 |
| 5 | 185 | 201 | 130 | 130 | 160 | 212 | 215 | 483 | 396 | 185 | 169 | 169 |
| 6 | 182 | 194 | 130 | 120 | 130 | 221 | 200 | 454 | 319 | 200 | 156 | 148 |
| 7 | 180 | 212 | 120 | 130 | 130 | 1,310 | 192 | 1,170 | 289 | 169 | 217 | 159 |
| 8 | 177 | 221 | 130 | 130 | 130 | 713 | 190 | 1,540 | 279 | 180 | 252 | 156 |
| 9 | 166 | 194 | 130 | 130 | 140 | 300 | 184 | 760 | 270 | 192 | 319 | 176 |
| 10 | 160 | 180 | 130 | 140 | 140 | 295 | 159 | 604 | 261 | 189 | 247 | 170 |
| 11 | 198 | 173 | 130 | 150 | 140 | 1,630 | 259 | 504 | 255 | 182 | 200 | 163 |
| 12 | 180 | 173 | 130 | 160 | 140 | 952 | 262 | 456 | 264 | 170 | 159 | 156 |
| 13 | 162 | 169 | 130 | 160 | 140 | 444 | 302 | 408 | 250 | 180 | 170 | 148 |
| 14 | 157 | 163 | 130 | 170 | 140 | 1,280 | 444 | 378 | 240 | 171 | 311 | 158 |
| 15 | 150 | 156 | 130 | 180 | 130 | 684 | 1,080 | 355 | 247 | 157 | 180 | 161 |
| 16 | 160 | 157 | 130 | 190 | 120 | 440 | 3,390 | 341 | 270 | 163 | 160 | 159 |
| 17 | 163 | 159 | 140 | 250 | 130 | 382 | 2,360 | 326 | 268 | 163 | 170 | 163 |
| 18 | 149 | 156 | 140 | 800 | 130 | 300 | 740 | 313 | 398 | 163 | 167 | 178 |
| 19 | 141 | 150 | 130 | 600 | 130 | 268 | 565 | 343 | 286 | 162 | 170 | 192 |
| 20 | 141 | 149 | 130 | 270 | 140 | 247 | 582 | 322 | 248 | 157 | 170 | 189 |
| 21 | 184 | 149 | 130 | 250 | 140 | 230 | 882 | 311 | 242 | 169 | 167 | 166 |
| 22 | 221 | 146 | 130 | 240 | 140 | 217 | 544 | 349 | 237 | 189 | 166 | 296 |
| 23 | 676 | 144 | 150 | 210 | 140 | 213 | 442 | 334 | 240 | 189 | 653 | 184 |
| 24 | 394 | 144 | 130 | 190 | 140 | 207 | 386 | 313 | 235 | 166 | 343 | 177 |
| 25 | 273 | 150 | 130 | 190 | 140 | 204 | 357 | 418 | 217 | 177 | 223 | 232 |
| 26 | 238 | 157 | 130 | 190 | 140 | 196 | 338 | 340 | 196 | 171 | 201 | 188 |
| 27 | 223 | 150 | 130 | 200 | 140 | 188 | 311 | 355 | 242 | 189 | 194 | 219 |
| 28 | 196 | 142 | 130 | 170 | 140 | 184 | 298 | 1,260 | 230 | 173 | 179 | 154 |
| 29 | 189 | 130 | 140 | 120 | ------ | 182 | 523 | 773 | 217 | 169 | 173 | 184 |
| 30 | 174 | 140 | 200 | 160 | ------ | 176 | 735 | 466 | 215 | 240 | 157 | 210 |
| 31 | 206 | ------ | 400 | 180 | ------ | 173 | ------ | 390 | ------ | 188 | 167 | ------ |
| TOTAL | 6,586 | 5,307 | 4,422 | 6,590 | 4,520 | 13,230 | 16,924 | 17,982 | 8,226 | 5,630 | 6,509 | 5,389 |
| MEAN | 212 | 177 | 143 | 211 | 161 | 427 | 564 | 580 | 274 | 182 | 210 | 180 |
| MAX | 676 | 293 | 400 | 800 | 560 | 1,630 | 3,390 | 1,540 | 398 | 240 | 653 | 296 |
| MIN | 141 | 130 | 120 | 120 | 120 | 173 | 159 | 311 | 196 | 157 | 156 | 148 |
| CFSM | .80 | .67 | .54 | .79 | .61 | 1.61 | 2.12 | 2.18 | 1.03 | .68 | .79 | .68 |
| IN. | .92 | .74 | .62 | .92 | .63 | 1.85 | 2.37 | 2.51 | 1.15 | .79 | .91 | .75 |

CAL YR 1972 TOTAL 67,729 MEAN 185 MAX 1,830 MIN 89 CFSM .70 IN 9.47
WTR YR 1973 TOTAL 101,275 MEAN 277 MAX 3,390 MIN 120 CFSM 1.04 IN 14.16

PEAK DISCHARGE (BASE, 1,700 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 3- 8 | 0015 | 8.90 | 1,810 | 3- 3 | 0045 | 8.64 | 1,730 |
| 3-11 | 1830 | 9.37 | 2,000 | 3- 8 | 0745 | 8.99 | 1,870 |
| 4-16 | 1630 | 11.92 | 4,670 | | | | |

## 05409830 North Fork Nederlo Creek near Gays Mills, Wis.

LOCATION.--Lat 43°21'47", long 90°54'34", in NE¼ sec.12, T.10 N., R.5 W., Crawford County, on right bank 160 ft (50 m) upstream from town-road bridge, 0.3 mi (0.5 km) above the confluence with South Fork Nederlo Creek, and 4.5 mi (7.2 km) northwest of Gays Mills.

DRAINAGE AREA.--2.3 $mi^2$ (6.0 $km^2$).

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Concrete control since Oct. 8, 1968. Altitude of gage is 800 ft (240 m) from topographic map.

AVERAGE DISCHARGE.--6 years, 0.78 $ft^3/s$ (0.022 $m^3/s$), 4.61 in/yr (117 mm/yr).

EXTREMES.--Current year: Maximum discharge, about 35 $ft^3/s$ (0.99 $m^3/s$) Feb. 1; minimum daily, 0.66 $ft^3/s$ (0.019 $m^3/s$) Dec. 7 to 16.
Period of record: Maximum discharge, 541 $ft^3/s$ (15.3 $m^3/s$) June 23, 1968, gage height, 14.60 ft (4.45 m) from rating curve extended above 3 $ft^3/s$ (0.08 $m^3/s$) on basis of contracted-opening measurement made at 14.60 ft (4.45 m), computation of flow through culvert made at gage height 13.80 ft (4.21 m) and slope-area measurement made at gage height 13.10 ft (3.99 m); minimum, 0.34 $ft^3/s$ (0.01 $m^3/s$) Feb. 22, 1971, gage height, 10.65 ft (3.25 m), result of freezeup.

REMARKS.--Records fair.

REVISIONS (WATER YEARS).--WRD Wis. 1970: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 6, 7, Jan. 5-8, Feb. 9, 17.)

| | | | |
|---|---|---|---|
| 10.7 | 0.46 | 11.4 | 4.6 |
| 10.8 | .80 | 11.7 | 9.0 |
| 11.0 | 1.6 | 12.0 | 18 |
| 11.2 | 2.8 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .88 | .88 | .73 | .80 | 11 | 1.0 | .84 | 1.1 | .91 | .88 | .88 | .91 |
| 2 | .80 | 1.0 | .73 | .80 | 1.0 | .88 | .84 | 1.5 | .91 | .91 | .88 | .91 |
| 3 | .80 | .88 | .73 | .80 | .88 | .95 | .80 | 1.1 | .95 | .88 | .88 | .95 |
| 4 | .77 | .88 | .73 | .77 | .88 | .84 | .80 | .95 | .91 | .88 | .91 | .95 |
| 5 | .77 | .88 | .73 | .76 | .80 | .84 | .80 | .91 | .91 | .88 | .88 | .91 |
| 6 | .80 | .88 | .70 | .74 | .80 | 1.5 | .80 | .91 | .88 | .88 | .91 | .91 |
| 7 | .77 | .88 | .66 | .72 | .77 | 2.1 | .80 | 3.0 | .88 | .88 | 1.1 | .91 |
| 8 | .77 | .88 | .66 | .70 | .77 | .99 | .84 | .88 | .88 | .88 | 1.7 | .91 |
| 9 | .73 | .84 | .66 | .70 | .76 | .95 | .80 | 1.2 | .88 | .88 | 1.2 | .95 |
| 10 | .77 | .84 | .66 | .73 | .80 | 2.0 | .77 | 1.1 | .88 | .88 | .99 | .95 |
| 11 | .85 | .80 | .66 | .73 | .80 | 1.8 | .77 | .99 | .88 | .88 | .95 | .95 |
| 12 | .77 | .80 | .66 | .73 | .80 | 1.2 | .91 | .95 | .88 | .88 | .95 | .88 |
| 13 | .77 | .80 | .66 | .73 | .80 | 1.1 | .99 | .91 | .84 | .88 | .99 | .88 |
| 14 | .77 | .80 | .66 | .73 | .80 | 2.1 | 1.1 | .91 | .84 | .88 | .91 | .88 |
| 15 | .77 | .80 | .66 | .73 | .80 | 1.1 | 1.4 | .88 | .88 | .88 | .91 | .91 |
| 16 | .77 | .77 | .66 | .73 | .80 | 1.1 | 3.2 | .88 | .91 | .88 | .91 | .91 |
| 17 | .77 | .73 | .68 | .80 | .78 | 1.0 | 1.4 | .88 | .91 | .88 | .88 | .95 |
| 18 | .77 | .73 | .70 | 1.1 | .73 | .95 | 1.2 | .88 | .91 | .88 | .91 | .91 |
| 19 | .73 | .73 | .73 | .91 | .73 | .95 | 1.0 | .88 | .88 | .88 | .91 | .91 |
| 20 | .80 | .73 | .73 | .80 | .73 | .91 | 1.1 | .88 | .88 | .88 | .88 | .84 |
| 21 | .88 | .73 | .73 | .80 | .73 | .88 | 1.1 | .88 | .88 | .91 | .91 | 1.6 |
| 22 | 1.6 | .73 | .73 | .80 | .77 | .88 | .99 | .88 | 1.0 | .95 | .99 | 1.2 |
| 23 | 1.6 | .73 | .73 | .77 | .77 | .84 | .91 | .88 | .99 | .91 | 1.1 | .99 |
| 24 | 1.0 | .73 | .73 | .80 | .73 | .84 | .88 | .91 | .91 | .91 | .99 | 1.1 |
| 25 | .99 | .77 | .73 | .77 | .73 | .84 | .88 | .91 | .88 | .88 | .91 | 1.4 |
| 26 | .95 | .77 | .73 | .77 | .73 | .80 | .88 | .84 | .95 | .95 | .91 | 1.1 |
| 27 | .88 | .73 | .73 | .77 | .73 | .80 | .84 | 1.2 | .95 | .91 | .91 | 1.0 |
| 28 | .88 | .73 | .73 | .77 | .73 | .80 | .84 | 1.3 | .88 | .88 | .91 | 1.0 |
| 29 | .88 | .73 | .80 | .73 | ------ | .80 | .95 | 1.0 | .88 | .88 | .91 | 1.4 |
| 30 | .84 | .73 | .99 | .73 | ------ | .80 | .95 | .95 | .88 | .88 | .95 | 1.2 |
| 31 | .91 | ------ | .88 | .73 | ------ | .80 | ------ | .91 | ------ | .88 | .95 | ------ |
| TOTAL | 27.04 | 23.91 | 22.30 | 23.95 | 32.15 | 33.34 | 30.38 | 32.35 | 27.00 | 27.57 | 29.97 | 30.27 |
| MEAN | .87 | .80 | .72 | .77 | 1.15 | 1.08 | 1.01 | 1.04 | .90 | .89 | .97 | 1.01 |
| MAX | 1.6 | 1.0 | .99 | 1.1 | 11 | 2.1 | 3.2 | 3.0 | 1.0 | .95 | 1.7 | 1.6 |
| MIN | .73 | .73 | .66 | .70 | .73 | .80 | .77 | .84 | .84 | .88 | .88 | .84 |
| CFSM | .38 | .35 | .31 | .33 | .50 | .47 | .44 | .45 | .39 | .39 | .42 | .44 |
| IN. | .44 | .39 | .36 | .39 | .52 | .54 | .49 | .52 | .44 | .45 | .48 | .49 |

CAL YR 1972 TOTAL 334.07 MEAN .91 MAX 5.4 MIN .60 CFSM .40 IN 5.40
WTR YR 1973 TOTAL 340.23 MEAN .93 MAX 11 MIN .66 CFSM .40 IN 5.50

## 05409890 Nederlo Creek near Gays Mills, Wis.

**LOCATION.**--Lat 43°21'43", long 90°52'44", in NW¼ sec.8, T.10 N., R.4 W., Crawford County, on right bank just upstream from bridge on private road, 1.2 mi (1.9 km) upstream from Tainter Creek and 3.4 mi (5.5 km) north of Gays Mills.

**DRAINAGE AREA.**--9.6 $mi^2$ (24.8 $km^2$).

**PERIOD OF RECORD.**--October 1967 to current year.

**GAGE.**--Water-stage recorder. Altitude of gage is 740 ft (230 m), from topographic map.

**AVERAGE DISCHARGE.**--6 years, 4.51 $ft^3/s$ (0.128 $m^3/s$), 6.38 in/yr (162 mm/yr).

**EXTREMES.**--Current year: Maximum discharge, 140 $ft^3/s$ (3.96 $m^3/s$) Sept. 21, gage height, 12.71 ft (3.874 m); minimum daily, 3.8 $ft^3/s$ (0.11 $m^3/s$) Jan. 9-15.

Period of record: Maximum discharge, 2,600 $ft^3/s$ (73.6 $m^3/s$) June 23, 1968, gage height, 17.06 ft (5.20 m) from rating curve extended above 20 $ft^3/s$ (0.57 $m^3/s$) on basis of slope-area measurement at site 1.2 mi (1.9 km) upstream at gage height 17.06 ft (5.20 m), computation of flow through culvert at gage height 14.80 ft (4.51 m) and slope-area measurement made at gage height 13.36 ft (4.072 m); minimum, 1.7 $ft^3/s$ (0.05 $m^3/s$) Feb. 16, 1968, gage height, 10.78 ft (3.286 m), result of freezeup.

**REMARKS.**--Records good except those for winter periods, which are fair. Hydrologic studies are being made in the Nederlo Creek basin and additional data at upstream sites are available.

**REVISIONS (WATER YEARS).**--WRD Wis. 1970: Drainage area.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 12, Feb. 14.)

| Oct. 1 to Jan. 3 | | | | Jan. 4 to Sept. 30 | | | |
|---|---|---|---|---|---|---|---|
| 10.7 | 3.4 | 11.2 | 14 | 10.7 | 4.1 | 11.2 | 14 |
| 10.8 | 4.2 | 11.3 | 19 | 10.8 | 5.1 | 11.3 | 19 |
| 10.9 | 5.3 | 11.4 | 25 | 10.9 | 6.2 | 11.4 | 25 |
| 11.0 | 7.5 | 11.5 | 32 | 11.0 | 8.0 | 11.5 | 32 |
| 11.1 | 10 | 11.8 | 55 | 11.1 | 10.4 | 11.8 | 55 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.0 | 4.8 | 4.1 | 4.2 | 45 | 6.6 | 5.2 | 8.0 | 5.8 | 5.2 | 5.2 | 5.3 |
| 2 | 4.8 | 5.7 | 4.1 | 4.0 | 7.5 | 5.7 | 5.1 | 12 | 5.8 | 5.5 | 5.2 | 5.5 |
| 3 | 4.6 | 4.9 | 4.1 | 4.1 | 4.8 | 5.8 | 4.9 | 6.5 | 6.1 | 5.2 | 5.1 | 5.6 |
| 4 | 4.6 | 4.6 | 4.0 | 4.0 | 5.0 | 5.0 | 4.9 | 6.1 | 5.8 | 5.2 | 5.3 | 5.6 |
| 5 | 4.6 | 4.6 | 3.9 | 4.0 | 4.6 | 5.0 | 4.8 | 5.9 | 5.8 | 5.1 | 5.2 | 5.3 |
| 6 | 4.6 | 4.6 | 3.9 | 4.0 | 4.5 | 9.8 | 4.7 | 6.2 | 5.8 | 5.2 | 5.3 | 5.3 |
| 7 | 4.5 | 5.0 | 3.9 | 3.9 | 4.4 | 16 | 4.7 | 29 | 5.6 | 5.1 | 5.9 | 5.3 |
| 8 | 4.4 | 4.5 | 3.9 | 3.9 | 4.4 | 5.7 | 4.9 | 11 | 5.6 | 5.1 | 9.0 | 5.3 |
| 9 | 4.4 | 4.4 | 3.9 | 3.8 | 4.4 | 5.2 | 5.3 | 8.0 | 5.5 | 5.2 | 6.6 | 5.6 |
| 10 | 4.5 | 4.4 | 3.9 | 3.8 | 4.2 | 16 | 5.3 | 7.2 | 5.3 | 5.2 | 5.6 | 5.5 |
| 11 | 5.2 | 4.4 | 3.9 | 3.8 | 4.2 | 17 | 5.0 | 6.8 | 5.3 | 5.1 | 5.3 | 5.5 |
| 12 | 4.4 | 4.3 | 3.9 | 3.8 | 4.2 | 7.3 | 5.2 | 6.5 | 5.3 | 5.1 | 5.3 | 5.3 |
| 13 | 4.4 | 4.3 | 3.9 | 3.8 | 4.2 | 6.8 | 5.0 | 6.2 | 5.2 | 5.1 | 5.6 | 5.3 |
| 14 | 4.3 | 4.3 | 3.9 | 3.8 | 4.4 | 17 | 6.6 | 6.2 | 5.2 | 5.1 | 5.6 | 5.3 |
| 15 | 4.2 | 4.2 | 3.9 | 3.8 | 4.2 | 7.3 | 12 | 6.1 | 5.3 | 5.1 | 5.5 | 5.5 |
| 16 | 4.3 | 4.2 | 3.9 | 4.0 | 4.2 | 6.8 | 31 | 6.2 | 5.5 | 5.1 | 5.3 | 5.5 |
| 17 | 4.2 | 4.2 | 3.9 | 6.4 | 4.2 | 6.2 | 7.8 | 5.9 | 5.8 | 5.1 | 5.3 | 5.5 |
| 18 | 4.2 | 4.2 | 3.9 | 14 | 4.2 | 5.8 | 7.0 | 6.1 | 5.7 | 5.1 | 5.3 | 5.6 |
| 19 | 4.2 | 4.2 | 3.9 | 4.9 | 4.2 | 5.6 | 6.6 | 6.1 | 5.5 | 5.1 | 5.3 | 5.6 |
| 20 | 4.5 | 4.2 | 3.9 | 4.2 | 4.2 | 5.5 | 8.0 | 5.8 | 5.3 | 5.2 | 5.3 | 5.6 |
| 21 | 4.9 | 4.2 | 3.9 | 4.2 | 4.2 | 5.3 | 7.3 | 5.9 | 5.2 | 5.3 | 5.3 | 15 |
| 22 | 13 | 4.2 | 3.9 | 4.2 | 4.5 | 5.2 | 6.5 | 5.9 | 6.8 | 5.6 | 5.7 | 9.8 |
| 23 | 12 | 4.2 | 3.9 | 4.1 | 4.7 | 5.1 | 6.1 | 5.8 | 6.1 | 5.3 | 6.2 | 6.1 |
| 24 | 5.7 | 4.2 | 4.0 | 4.1 | 4.5 | 5.1 | 5.8 | 6.2 | 5.3 | 5.5 | 5.7 | 6.2 |
| 25 | 5.1 | 4.3 | 4.0 | 4.2 | 4.2 | 5.2 | 5.8 | 6.2 | 5.3 | 5.3 | 5.6 | 8.0 |
| 26 | 5.0 | 4.3 | 4.0 | 4.2 | 4.2 | 5.0 | 5.6 | 5.8 | 5.6 | 5.5 | 5.5 | 6.2 |
| 27 | 4.9 | 4.2 | 4.0 | 4.2 | 4.2 | 4.9 | 5.6 | 11 | 5.6 | 5.5 | 5.3 | 6.1 |
| 28 | 4.6 | 4.1 | 4.0 | 4.1 | 4.4 | 4.9 | 5.5 | 8.7 | 5.3 | 5.3 | 5.3 | 5.9 |
| 29 | 4.6 | 4.0 | 4.2 | 4.1 | ——— | 4.8 | 6.2 | 6.6 | 5.3 | 5.3 | 5.7 | 7.2 |
| 30 | 4.6 | 4.0 | 7.2 | 4.1 | ——— | 4.7 | 6.6 | 6.1 | 5.2 | 5.3 | 5.6 | 6.6 |
| 31 | 4.5 | ——— | 4.0 | 4.1 | ——— | 4.8 | ——— | 5.8 | ——— | 5.3 | 5.5 | ——— |
| TOTAL | 150.0 | 131.7 | 126.6 | 137.0 | 165.9 | 221.1 | 205.0 | 235.0 | 166.9 | 162.3 | 174.4 | 186.1 |
| MEAN | 5.12 | 4.39 | 4.08 | 4.45 | 5.93 | 7.13 | 6.86 | 7.61 | 5.56 | 5.24 | 5.63 | 6.20 |
| MAX | 13 | 5.7 | 7.2 | 14 | 45 | 17 | 31 | 29 | 6.8 | 5.6 | 9.0 | 15 |
| MIN | 4.2 | 4.0 | 3.9 | 3.8 | 4.2 | 4.7 | 4.7 | 5.8 | 5.2 | 5.1 | 5.1 | 5.3 |
| CFSM | .53 | .46 | .43 | .46 | .62 | .74 | .71 | .79 | .58 | .55 | .59 | .65 |
| IN. | .62 | .51 | .49 | .53 | .64 | .86 | .80 | .91 | .65 | .63 | .68 | .72 |

CAL YR 1972 TOTAL 1,853.4 MEAN 5.06 MAX 54 MIN 3.4 CFSM .53 IN 7.18
WTR YR 1973 TOTAL 2,073.2 MEAN 5.68 MAX 45 MIN 3.8 CFSM .59 IN 8.03

## 05410000 Kickapoo River at Gays Mills, Wis.

LOCATION.--Lat 43°19'10", long 90°51'08", in NE¼ sec.28, T.10 N., R.4 W., Crawford County, on upstream side of bridge on State Highway 171, 300 ft (91 m) downstream from dam in Gays Mills and 3.3 mi (5.3 km) downstream from Taintor Creek.

DRAINAGE AREA.--616 mi² (1,595 km²).

PERIOD OF RECORD.--December 1913 to September 1934. Monthly discharge only July to September 1934, published in WSP 1308. April 1964 to current year.

GAGE.--Nonrecording gage. Datum of gage is 685.75 ft (209.017 m) above mean sea level.

AVERAGE DISCHARGE.--29 years (1914-34, 1964-73), 421 ft³/s (11.92 m³/s), 9.28 in/yr (236 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,090 ft³/s (144 m³/s) Apr. 17, gage height, 14.45 ft (4.404 m) from graph based on gage readings; minimum daily, 310 ft³/s (8.78 m³/s) Dec. 7, 8.
Period of record: Maximum discharge, 10,600 ft³/s (300 m³/s) Feb. 10, 1966, gage height, 16.01 ft (4.877 m); minimum observed, 48 ft³/s (1.36 m³/s) July 27, 1931, gage height, 0.51 ft (0.155 m).
Flood in 1913 reached a stage of 15.2 ft (4.63 m) from floodmark (backwater from ice probable).
Flood in 1961 reached a stage of 16.37 ft (4.990 m) from floodmark.

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation caused by dam 300 ft (91 m) upstream.

REVISIONS (WATER YEARS).--WSP 1438: 1915-16(M), 1917, 1918-19(M), 1920-23, 1924-26(M), 1927-30, 1931(M), 1933, 1933-34(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 4 to Mar. 1.)

| | | | |
|---|---|---|---|
| 4.0 | 272 | 10.0 | 1,280 |
| 6.0 | 560 | 12.0 | 2,100 |
| 8.0 | 888 | 14.2 | 4,550 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,740 | 557 | 403 | 600 | 470 | 440 | 539 | 1,160 | 1,080 | 598 | [illegible] | [illegible] |
| 2 | 928 | 709 | 382 | 560 | 1,000 | 669 | 608 | 1,330 | 992 | 581 | [illegible] | [illegible] |
| 3 | 746 | 717 | 354 | 470 | 600 | 784 | 678 | 1,580 | 953 | 568 | [illegible] | [illegible] |
| 4 | 645 | 630 | 348 | 450 | 520 | 723 | 605 | 1,920 | 920 | 556 | [illegible] | [illegible] |
| 5 | 584 | 590 | 340 | 440 | 470 | 675 | 589 | 1,930 | 886 | 533 | [illegible] | [illegible] |
| 6 | 560 | 554 | 320 | 420 | 430 | 578 | 582 | 1,480 | 863 | 526 | [illegible] | [illegible] |
| 7 | 566 | 554 | 310 | 410 | 400 | 1,000 | 551 | 1,380 | 787 | 520 | 465 | [illegible] |
| 8 | 563 | 563 | 310 | 400 | 380 | 1,210 | 533 | 1,740 | 733 | 514 | [illegible] | [illegible] |
| 9 | 495 | 557 | 320 | 400 | 360 | 1,250 | 516 | 2,040 | 710 | 509 | [illegible] | [illegible] |
| 10 | 497 | 532 | 320 | 400 | 350 | 1,180 | 521 | 2,360 | 672 | 515 | [illegible] | [illegible] |
| 11 | 524 | 516 | 320 | 390 | 400 | 1,280 | 551 | 1,840 | 653 | 503 | [illegible] | [illegible] |
| 12 | 536 | 491 | 320 | 380 | 400 | 1,510 | 650 | 1,390 | 658 | 496 | [illegible] | [illegible] |
| 13 | 506 | 440 | 320 | 380 | 380 | 1,740 | 691 | 1,140 | 653 | 485 | [illegible] | [illegible] |
| 14 | 488 | 478 | 320 | 380 | 360 | 2,130 | 787 | 1,010 | 621 | 482 | [illegible] | [illegible] |
| 15 | 458 | 466 | 320 | 380 | 340 | 1,830 | 1,060 | 937 | 632 | 473 | [illegible] | [illegible] |
| 16 | 460 | 470 | 320 | 390 | 330 | 1,620 | 1,400 | 872 | 664 | 467 | 467 | 458 |
| 17 | 461 | 464 | 320 | 430 | 360 | 1,510 | 3,440 | 846 | 788 | 485 | [illegible] | [illegible] |
| 18 | 452 | 464 | 330 | 620 | 380 | 1,070 | 4,440 | 902 | 733 | 464 | 479 | 455 |
| 19 | 422 | 454 | 330 | 900 | 400 | 846 | 2,590 | 812 | 677 | 468 | 476 | 467 |
| 20 | 434 | 437 | 330 | 1,000 | 380 | 749 | 1,890 | 821 | 626 | 480 | 470 | 473 |
| 21 | 489 | 431 | 330 | 720 | 370 | 668 | 1,420 | 788 | 616 | 482 | [illegible] | 482 |
| 22 | 874 | 434 | 330 | 600 | 360 | 654 | 1,340 | 782 | 621 | 499 | 467 | [illegible] |
| 23 | 944 | 431 | 330 | 540 | 390 | 634 | 1,300 | 802 | 611 | 506 | 432 | [illegible] |
| 24 | 1,090 | 431 | 330 | 490 | 480 | 618 | 1,210 | 782 | 614 | 524 | [illegible] | [illegible] |
| 25 | 1,020 | 432 | 330 | 460 | 370 | 592 | 933 | 829 | 610 | 497 | [illegible] | [illegible] |
| 26 | 726 | 432 | 330 | 440 | 360 | 582 | 850 | 897 | 595 | 494 | [illegible] | [illegible] |
| 27 | 677 | 448 | 330 | 410 | 360 | 562 | 795 | 899 | 613 | 494 | [illegible] | [illegible] |
| 28 | 598 | 431 | 340 | 390 | 360 | 546 | 760 | 931 | 611 | 497 | [illegible] | [illegible] |
| 29 | 548 | 422 | 370 | 380 | ------ | 534 | 762 | 1,220 | 610 | 536 | [illegible] | [illegible] |
| 30 | 534 | 404 | 420 | 370 | ------ | 527 | 968 | 1,300 | 624 | 565 | [illegible] | [illegible] |
| 31 | 532 | ------ | 500 | 400 | ------ | 526 | ------ | 1,410 | ------ | 530 | [illegible] | ------ |
| TOTAL | 20,017 | 14,981 | 10,577 | 15,240 | 11,680 | 29,169 | 33,559 | 37,970 | 21,426 | 15,842 | [illegible] | [illegible] |
| MEAN | 645 | 499 | 341 | 492 | 417 | 941 | 1,119 | 1,225 | 714 | 511 | [illegible] | [illegible] |
| MAX | 1,740 | 717 | 500 | 1,000 | 1,000 | 2,130 | 4,440 | 2,360 | 1,080 | 598 | [illegible] | [illegible] |
| MIN | 489 | 404 | 310 | 370 | 330 | 440 | 516 | 782 | 595 | 464 | [illegible] | [illegible] |
| CFSM | 1.05 | .81 | .55 | .80 | .68 | 1.53 | 1.82 | 1.99 | 1.16 | .83 | [illegible] | [illegible] |
| IN. | 1.21 | .90 | .44 | .92 | .71 | 1.76 | 2.03 | 2.29 | 1.29 | .96 | [illegible] | [illegible] |

CAL YR 1972 TOTAL 168,581 MEAN 461 MAX 2,260 MIN 240 CFSM .75 IN 10.18
WTR YR 1973 TOTAL 241,945 MEAN 663 MAX 4,440 MIN 310 CFSM 1.08 IN 14.61

## 05410500 Kickapoo River at Steuben, Wis.

LOCATION.--Lat 43°11'27", long 90°52'28", in NW¼ sec.8, T.8 N., R.4 W., Crawford County, on right bank 0.8 mi (1.3 km) upstream from Duffy Creek, 1.0 mi (1.6 km) northwest of Steuben and 14 mi (23 km) upstream from mouth.

DRAINAGE AREA.--690 $mi^2$ (1,790 $km^2$).

PERIOD OF RECORD.--May 1933 to current year.

GAGE.--Water-stage recorder. Datum of gage is 657.82 ft (200.50 m) above mean sea level, adjustment of 1912. Prior to Oct. 20, 1938, nonrecording gage at site 1.0 mi (1.6 km) upstream at datum 1.3 ft(0.4 m) higher.

AVERAGE DISCHARGE.--40 years, 458 $ft^3/s$ (12.97 $m^3/s$), 9.01 in/yr (228 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,070 $ft^3/s$ (144 $m^3/s$) Apr. 18, gage height, 10.20 ft (3.11 m); minimum daily, 380 $ft^3/s$ (10.8 $m^3/s$) Dec. 6, Feb. 17.

Period of record: Maximum discharge, 10,800 $ft^3/s$ (306 $m^3/s$) Mar. 28, 1961, gage height, 12.33 ft (3.76 m); minimum observed, 161 $ft^3/s$ (4.56 $m^3/s$) Aug. 9, 1936, gage height, 0.76 ft (0.23 m) site and datum then in use.

REMARKS.--Records good except those for winter period, which are fair.

REVISIONS (WATER YEARS).--WSP 855: Drainage area. WSP 1438: 1933-38.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 2 to Mar. 1.)

| | | | |
|---|---|---|---|
| 3.0 | 303 | 7.0 | 1,000 |
| 4.0 | 450 | 8.0 | 1,250 |
| 5.0 | 600 | 9.0 | 2,080 |
| 6.0 | 780 | 10.0 | 4,570 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,550 | 587 | 450 | 760 | 500 | 440 | 572 | 1,160 | 1,460 | 644 | 594 | 543 |
| 2 | 2,400 | 656 | 440 | 580 | 1,000 | 622 | 605 | 1,300 | 1,340 | 642 | 554 | 542 |
| 3 | 1,560 | 740 | 430 | 520 | 1,000 | 778 | 682 | 1,420 | 1,180 | 640 | 534 | 566 |
| 4 | 899 | 760 | 420 | 480 | 800 | 798 | 666 | 1,570 | 1,120 | 642 | 530 | 596 |
| 5 | 700 | 673 | 400 | 440 | 540 | 736 | 627 | 2,020 | 1,080 | 614 | 528 | 588 |
| 6 | 646 | 613 | 380 | 430 | 500 | 651 | 622 | 2,220 | 1,020 | 598 | 522 | 558 |
| 7 | 611 | 600 | 390 | 430 | 480 | 981 | 600 | 2,000 | 952 | 592 | 539 | 534 |
| 8 | 590 | 602 | 400 | 420 | 460 | 1,150 | 584 | 1,890 | 864 | 598 | 586 | 528 |
| 9 | 570 | 610 | 400 | 420 | 440 | 1,220 | 597 | 2,020 | 812 | 578 | 758 | 532 |
| 10 | 546 | 594 | 400 | 420 | 460 | 1,200 | 591 | 2,470 | 776 | 580 | 712 | 549 |
| 11 | 543 | 570 | 400 | 420 | 470 | 1,420 | 576 | 2,600 | 746 | 574 | 706 | 554 |
| 12 | 575 | 557 | 400 | 420 | 460 | 1,420 | 640 | 2,250 | 742 | 567 | 586 | 537 |
| 13 | 566 | 540 | 400 | 430 | 450 | 1,460 | 712 | 1,790 | 738 | 561 | 556 | 528 |
| 14 | 540 | 533 | 400 | 430 | 430 | 1,050 | 806 | 1,450 | 719 | 556 | 554 | 528 |
| 15 | 516 | 522 | 400 | 440 | 410 | 2,270 | 1,040 | 1,250 | 693 | 552 | 591 | 524 |
| 16 | 507 | 513 | 400 | 460 | 390 | 2,020 | 1,370 | 1,120 | 697 | 550 | 618 | 524 |
| 17 | 501 | 507 | 400 | 480 | 380 | 1,790 | 1,760 | 1,030 | 762 | 542 | 550 | 534 |
| 18 | 501 | 504 | 400 | 700 | 400 | 1,740 | 4,400 | 974 | 877 | 538 | 538 | 552 |
| 19 | 494 | 500 | 400 | 860 | 470 | 1,400 | 3,570 | 954 | 873 | 536 | 534 | 561 |
| 20 | 482 | 492 | 400 | 1,000 | 460 | 1,010 | 2,570 | 929 | 786 | 532 | 532 | 552 |
| 21 | 500 | 486 | 400 | 980 | 440 | 818 | 2,250 | 931 | 732 | 536 | 530 | 536 |
| 22 | 554 | 482 | 410 | 800 | 420 | 742 | 1,810 | 902 | 695 | 554 | 530 | 635 |
| 23 | 931 | 477 | 410 | 600 | 410 | 698 | 1,560 | 891 | 695 | 566 | 567 | 652 |
| 24 | 1,090 | 473 | 400 | 540 | 430 | 671 | 1,480 | 877 | 697 | 580 | 712 | 664 |
| 25 | 1,140 | 473 | 400 | 500 | 430 | 654 | 1,370 | 911 | 684 | 578 | 924 | 619 |
| 26 | 974 | 482 | 390 | 480 | 410 | 634 | 1,150 | 947 | 664 | 567 | 713 | 637 |
| 27 | 764 | 488 | 390 | 460 | 400 | 614 | 978 | 1,010 | 684 | 567 | 614 | 640 |
| 28 | 675 | 486 | 400 | 430 | 400 | 597 | 888 | 1,120 | 679 | 562 | 584 | 594 |
| 29 | 629 | 473 | 420 | 410 | ------ | 584 | 862 | 1,220 | 688 | 555 | 562 | 606 |
| 30 | 590 | 458 | 470 | 390 | ------ | 574 | 962 | 1,280 | 659 | 552 | 556 | 652 |
| 31 | 579 | ------ | 540 | 410 | ------ | 566 | ------ | 1,360 | ------ | 603 | 561 | ------ |
| TOTAL | 24,723 | 16,451 | 12,740 | 16,540 | 13,840 | 32,188 | 36,900 | 43,866 | 25,114 | 17,856 | 18,475 | 17,165 |
| MEAN | 798 | 548 | 411 | 534 | 494 | 1,038 | 1,230 | 1,415 | 837 | 576 | 596 | 572 |
| MAX | 2,550 | 760 | 540 | 1,000 | 1,000 | 2,270 | 4,400 | 2,600 | 1,460 | 644 | 924 | 664 |
| MIN | 482 | 458 | 380 | 390 | 380 | 440 | 572 | 877 | 659 | 532 | 522 | 524 |
| CFSM | 1.16 | .79 | .60 | .77 | .72 | 1.50 | 1.78 | 2.05 | 1.21 | .83 | .86 | .83 |
| IN. | 1.33 | .89 | .69 | .89 | .75 | 1.74 | 1.99 | 2.36 | 1.35 | .96 | 1.00 | .93 |

CAL YR 1972 TOTAL 193,902 MEAN 530 MAX 2,550 MIN 296 CFSM .77 IN 10.45
WTR YR 1973 TOTAL 275,858 MEAN 756 MAX 4,400 MIN 380 CFSM 1.10 IN 14.87

PEAK DISCHARGE (BASE, 1,900 $FT^3/S$)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10- 1 | 1400 | 9.21 | 2,700 | 4-18 | 1600 | 10.20 | 5,070 |
| 3-15 | 0600 | 9.17 | 2,340 | 5-10 | 2200 | 9.24 | 2,670 |

## Reservoirs in Wisconsin River Basin

The 24 reservoirs listed below are used to stabilize the flow of the Wisconsin and Tomahawk Rivers for power utilization and are also used for recreational purposes. The first 21 reservoirs are owned and operated by the Wisconsin Valley Improvement Co., which furnished the gage heights and capacity tables. Revised capacity tables for all 21 reservoirs were received from the company in April 1957 and were used to compute month-end usable contents beginning Sept. 30, 1955. Another revised capacity table for Burnt Rollways Reservoir was used to compute month-end usable contents beginning Sept. 30, 1964. Lake Dubay is owned by the Consolidated Water Power Co. Petenwell and Castle Rock are owned and operated by the Wisconsin River Power Co., which furnished the gage heights and capacity tables for these two reservoirs. Month-end contents are computed by the U.S. Geological Survey. The usable capacity of these reservoirs is usually less in summer than in winter because the allowable summer drawdown is limited by the Department of Natural Resources in the interest of riparian property owners. There are occasionally formal or informal changes in capacity and in minimum drawdown levels. Usable capacity figures listed below are for winter regulation.

05390100 Lac Vieux Desert on Wisconsin River, lat 46°07'18", long 89°09'07", in SE¼ NW¼ sec.17, T.42 N., R.11 E., Vilas County, 4.8 mi (7.7 km) northwest of Phelps, Wis., used as a reservoir since 1908, has a usable capacity of 652,000,000 ft³ (18,500,000 m³). Drainage area, 28 mi² (72 km²). Datum of gage is 1,679.53 ft (511.42 m) above mean sea level.

05390150 Twin Lakes on Twin River, lat 46°01'20", long 89°10'05", in SW¼ NE¼ sec.19, T.41 N., R.11 E., Vilas County, 5.0 mi (8.0 km) southwest of Phelps, Wis., used as a reservoir since 1908, has a usable capacity of 313,000,000 ft³ (8,860,000 m³). Drainage area, 26 mi² (67 km²). Altitude of gage is 1,640 ft (500 m), from river-profile map.

05390200 Buckatabon Lakes on Buckatabon Creek, lat 46°01'18", long 89°18'40", in SE¼ NE¼ sec.24, T.41 N., R.9 E., Vilas County, 3.3 mi (5.3 km) southwest of Conover, Wis., used as a reservoir since 1908, has a usable capacity of 130,000,000 ft³ (3,680,000 m³). Drainage area, 14 mi² (36 km²). Datum of gage is 1,637.85 ft (499.22 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05390250 Sevenmile Lake on Sevenmile Creek, lat 45°52'30", long 89°04'07", in SE¼ NE¼ sec.11, T.39 N., R.11 E., Oneida County, 9.1 mi (14.6 km) southeast of town of Eagle River, Wis., used as a reservoir since 1908, has a usable capacity of 93,000,000 ft³ (2,630,000 m³). Drainage area, 14 mi² (36 km²). Datum of gage is 1,646.30 ft (501.79 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05390300 Lower Ninemile Lake on Ninemile Creek, lat 45°53'37", long 89°07'15", in NE¼ NW¼ sec.4, T.39 N., R.11 E., Oneida County, 6.6 mi (10.6 km) southeast of town of Eagle River, Wis., used as a reservoir since 1908, has a usable capacity of 121,000,000 ft³ (3,430,000 m³). Drainage area, 25 mi² (65 km²). Datum of gage is 1,638.27 ft (499.34 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05390350 Burnt Rollways Reservoir on Eagle River, lat 45°53'40", long 89°08'28", in NE¼ NW¼ sec.5, T.39 N., R.11 E., Oneida County, 5.3 mi (8.5 km) southeast of town of Eagle River, Wis., used as a reservoir since 1908, has a usable capacity of 779,000,000 ft³ (22,100,000 m³). This reservoir includes 18 lakes controlled by the same dam. Drainage area, 129 mi² (334 km²). Altitude of gage is 1,620 ft (494 m), from river-profile map.

05390400 Long Lake on Deerskin River, lat 46°02'37", long 89°02'44", in NW¼ SE¼ sec.7, T.41 N., R.12 E., Vilas County, 2.5 mi (4.0 km) southeast of Phelps, Wis., used as a reservoir since 1908, has a usable capacity of 400,000,000 ft³ (11,300,000 m³). Drainage area, 35 mi² (91 km²). Datum of gage is 1,695.14 ft (516.68 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05390600 Deerskin Lake on Little Deerskin River, lat 45°59'07", long 89°09'40", in SE¼ sec.31, T.41 N., R.11 E., Vilas County, 6.3 mi (10.1 km) northeast of town of Eagle River, Wis., used as a reservoir since 1908, has a usable capacity of 22,000,000 ft³ (623,000 m³). Drainage area, 5 mi² (13 km²). Datum of gage is 1,640.16 ft (499.92 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05390650 Sugar Camp Reservoir on Sugar Camp Creek, lat 45°52'19", long 89°23'40", in NE¼ sec.17, T.39 N., R.9 E., Oneida County, 7.6 mi (12.2 km) southwest of town of Eagle River, Wis., used as a reservoir since 1908, has a usable capacity of 471,000,000 ft³ (13,300,000 m³). Drainage area, 59 mi² (153 km²). Datum of gage is 1,591.94 ft (485.22 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05390700 Little St. Germain Lake on Little St. Germain Creek, lat 45°53'57", long 89°27'08", in SE¼ sec.35, T.40 N., R.8 E., Vilas County, 9.6 mi (15.4 km) west of town of Eagle River, Wis., used as a reservoir since 1908, has a usable capacity of 79,000,000 ft³ (2,240,000 m³). Drainage area, 19 mi² (49 km²). Datum of gage is 1,611.54 ft (491.20 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05390750 Big St. Germain Lake on St. Germain River, lat 45°55'06", long 89°31'55", in SE¼ sec.30, T.40 N., R.8 E., Vilas County, 5.0 mi (8.0 km) south of Sayner, Wis., used as a reservoir since 1908, has a usable capacity of 202,000,000 ft³ (5,720,000 m³). Drainage area, 69 mi² (179 km²). Datum of gage is 1,588.32 ft (484.12 m) above mean sea level (levels by Public Service Commission of Wisconsin).

05390800 Pickerel Lake on St. Germain River, lat 45°52'22", long 89°31'47", in NW¼ sec.18, T.39 N., R.8 E., Oneida County, 5.0 mi (8.0 km) northeast of town of Lake Tomahawk, Wis., used as a reservoir since 1935, has a usable capacity of 338,000,000 ft³ (9,570,000 m³). Drainage area, 78 mi² (202 km²). Datum of gage is 1,582.00 ft (482.19 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05390900 Rainbow Lake on Wisconsin River, lat 45°50'02", long 89°32'42", in SW¼ sec.30, T.39 N., R.8 E., Oneida County, 800 ft (244 m) upstream from U.S. Geological Survey river gaging station, 2.7 mi (4.5 km) northeast of town of Lake Tomahawk, Wis., used as a reservoir since 1935, has a usable capacity of 2,181,000,000 ft³ (61,770,000 m³). Drainage area, 740 mi² (1,917 km²). Datum of gage is 1,570.00 ft (478.54 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05391100 South Pelican Lake on Pelican River, lat 45°31'37", long 89°12'24", in S¼ sec.11, T.35 N., R.10 E., Oneida County, 2.8 mi (4.5 km) northwest of town of Pelican Lake, Wis., used as a reservoir since 1909, has a usable capacity of 305,000,000 ft³ (8,640,000 m³). Drainage area, 22 mi² (57 km²). Datum of gage is 1,589.98 ft (484.63 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

Reservoirs in Wisconsin River Basin--Continued

05391300 North Pelican Lakes (includes Moen Lakes) on North Branch Pelican River, lat 45°38'05", long 89°14'38", in SE¼ sec.4, T.36 N., R.10 E., Oneida County, 0.2 mi (0.3 km) below Twin Lakes Creek and 8.0 mi (12.9 km) east of Rhinelander, Wis., city limits, used as a reservoir since 1908, has a usable capacity of 218,000,000 ft³ (6,170,000 m³). Drainage area, 71 mi² (184 km²). Datum of gage is 1,569.10 ft (478.26 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05392100 Minocqua Lake on Tomahawk River, lat 45°52'35", long 89°43'38", on line between secs.10 and 15, T.39 N., R.6 E., Oneida County, 1.0 mi (1.6 km) west of Minocqua, Wis., used as a reservoir since 1910, has a usable capacity of 628,000,000 ft³ (17,800,000 m³). Drainage area, 89 mi² (231 km²). Datum of gage is 1,584.56 ft (482.97 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05392200 Squirrel Lake on Squirrel River, lat 45°50'37", long 89°54'13", in NE¼ sec.30, T.39 N., R.5 E., Oneida County, 9.4 mi (15.1 km) west of Minocqua, Wis., used as a reservoir since 1908, has a usable capacity of 182,000,000 ft³ (5,150,000 m³). Drainage area, 17 mi² (44 km²). Datum of gage is 1,560.93 ft (475.77 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05392300 Willow Reservoir on Tomahawk River, lat 45°42'45", long 89°50'38", in NW¼ sec.10, T.37 N., R.5 E., Oneida County, 8.8 mi (14.2 km) southwest of Hazelhurst, Wis., used as a reservoir since 1927, has a usable capacity of 3,302,000,000 ft³ (93,510,000 m³). Drainage area, 327 mi² (847 km²). Datum of gage is 1,505.87 ft (458.99 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05392500 Lake Nokomis on Tomahawk River, lat 45°32'20", long 89°44'48", in NW¼ sec.9, T.35 N., R.6 E., Lincoln County, at U.S. Geological Survey river gaging station, 0.5 mi (0.8 km) east of Bradley, Wis., used as a reservoir since 1912, has a usable capacity of 1,808,000,000 ft³ (51,200,000 m³). Drainage area, 548 mi² (1,419 km²). Datum of gage is 1,448.24 ft (441.42 m) above mean sea level.

05393600 Spirit River Flowage on Spirit River, lat 45°26'18", long 89°44'30", in NE¼ sec.16, T.34 N., R.6 E., Lincoln County, 2.0 mi (3.2 km) south of Tomahawk, Wis., used as a reservoir since 1923, has a usable capacity of 756,000,000 ft³ (21,400,000 m³). Drainage area, 174 mi² (451 km²). Datum of gage is 1,420.53 ft (432.98 m) above mean sea level.

05399600 Big Eau Pleine Reservoir on Big Eau Pleine River, lat 44°43'52", long 89°45'35", in SW¼ sec.14, T.26 N., R.6 E., Marathon County, 3.0 mi (4.8 km) northeast of Dancy, Wis., used as a reservoir since 1937, has a usable capacity of 4,457,000,000 ft³ (126,200,000 m³). Drainage area, 365 mi² (945 km²). Datum of gage is 1,115.00 ft (339.85 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05400295 Lake Dubay on Wisconsin River, lat 44°39'54", long 89°39'03", in sec.10, T.25 N., R.7 E., Wood County, 1.5 mi (2.4 km) downstream from Little Eau Pleine River and 10.5 mi (16.9 km) northwest of Stevens Point, has a usable capacity of 2,117,000,000 ft³ (59,950,000 m³). Drainage area, 4,890 mi² (12,665 km²). Datum of gage is at mean sea level (power company levels).

05401400 Petenwell Flowage on Wisconsin River, lat 44°03'26", long 90°01'18", in SE¼ sec.4, T.18 N., R.4 E., Adams County, 5.2 mi (8.4 km) upstream from Roche a Cri Creek, 2.4 mi (3.9 km) west of Strongs Prairie, Wis., and 3.5 mi (5.6 km) northeast of Necedah, Wis., used as a reservoir since 1950, has a total capacity of 19,880,000,000 ft³ (563,000,000 m³). Drainage area, 5,869 mi² (15,201 km²). Datum of gage is 790.2 ft (240.9 m) above mean sea level (levels by Wisconsin River Power Co.).

05403200 Castle Rock Flowage on Wisconsin River, lat 43°51'48", long 89°57'38", in sec.13, T.16 N., R.4 E., Adams County, 4.5 mi (7.2 km) upstream from Duck Creek, and 2.0 mi (3.2 km) south of Germantown, Wis., and 7.0 mi (11.3 km) northeast of Mauston, Wis., used as a reservoir since 1950, has a total capacity of 7,630,000,000 ft³ (216,000,000 m³). Drainage area, 6,860 mi² (17,767 km²). Datum of gage is 790.2 ft (240.9 m) above mean sea level (levels by Wisconsin River Power Co.).

Month-end contents, in millions of cubic feet, water year October 1972 to September 1973

| | Lac Vieux Desert | Twin Lakes | Buckatabon Lake | Sevenmile Lake | Lower Ninemile Lake | Burnt Rollways Reservoir | Long Lake | Deerskin Lake |
|---|---|---|---|---|---|---|---|---|
| Sept. 30..... | 340 | 289 | 118 | 86 | 123 | 738 | 246 | 14 |
| Oct. 31..... | 231 | 255 | 108 | 85 | 117 | 718 | 240 | 11 |
| Nov. 30..... | 170 | 224 | 88 | 76 | 108 | 671 | 202 | 7 |
| Dec. 31..... | 114 | 130 | 42 | 42 | 44 | 464 | 152 | 6 |
| Jan. 31..... | 100 | 29 | 24 | 21 | 2 | 92 | 40 | 7 |
| Feb. 28..... | 24 | 0 | 21 | 11 | 14 | 0 | 2 | 6 |
| Mar. 31..... | 235 | 104 | 87 | 67 | 119 | 752 | 242 | 8 |
| Apr. 30..... | 399 | 193 | 120 | 84 | 128 | 752 | 253 | 16 |
| May 31..... | 380 | 286 | 118 | 81 | 120 | 755 | 247 | 16 |
| June 30..... | 358 | 283 | 119 | 84 | 126 | 752 | 244 | 16 |
| July 31..... | 388 | 276 | 120 | 80 | 120 | 698 | 242 | 15 |
| Aug. 31..... | 401 | 309 | 122 | 86 | 129 | 759 | 261 | 17 |
| Sept. 30..... | 263 | 244 | 102 | 70 | 100 | 651 | 199 | 14 |

Reservoirs in Wisconsin River Basin--Continued

Month-end contents, in millions of cubic feet, water year October 1972 to September 1973

| | Sugar Camp Reservoir | Little St. Germain Lake | Big St. Germain Lake | Pickerel Lake | Rainbow Lake | South Pelican Lake | North Pelican Lakes | Minocqua Lake |
|---|---|---|---|---|---|---|---|---|
| Sept. 30..... | 451 | 75 | 171 | 266 | 2,155 | 318 | 144 | 529 |
| Oct. 31..... | 462 | 71 | 170 | 265 | 2,127 | 267 | 148 | 517 |
| Nov. 30..... | 388 | 43 | 120 | 250 | 2,137 | 216 | 114 | 478 |
| Dec. 31..... | 298 | 28 | 94 | 241 | 1,968 | 146 | 61 | 394 |
| Jan. 31..... | 223 | 12 | 69 | 228 | 1,786 | 139 | 50 | 308 |
| Feb. 28..... | 21 | 3 | 2 | 184 | 1,165 | 76 | 34 | 222 |
| Mar. 31..... | 392 | 58 | 159 | 241 | 2,119 | 282 | 139 | 523 |
| Apr. 30..... | 441 | 77 | 174 | 252 | 2,149 | 282 | 157 | 538 |
| May 31..... | 418 | 76 | 163 | 270 | 2,117 | 292 | 136 | 562 |
| June 30..... | 404 | 75 | 162 | 267 | 1,859 | 241 | 140 | 517 |
| July 31..... | 410 | 75 | 163 | 265 | 1,339 | 231 | 140 | 535 |
| Aug. 31..... | 408 | 77 | 165 | 269 | 1,120 | 276 | 136 | 568 |
| Sept. 30..... | 352 | 65 | 151 | 268 | 1,251 | 254 | 136 | 437 |

| | Squirrel Lake | Willow Reservoir | Lake Nokomis | Spirit Lake Flowage | Big Eau Pleine Reservoir | Lake Dubay | Petenwell Flowage | Castle Rock Flowage |
|---|---|---|---|---|---|---|---|---|
| Sept. 30..... | 158 | 2,826 | 1,786 | 725 | 4,302 | 4,548 | 18,800 | 6,779 |
| Oct. 31..... | 148 | 3,222 | 1,752 | 728 | 4,399 | 4,501 | 18,926 | 6,837 |
| Nov. 30..... | 138 | 2,956 | 1,595 | 710 | 4,399 | 4,318 | 18,863 | 6,750 |
| Dec. 31..... | 83 | 1,919 | 1,387 | 429 | 3,934 | 4,537 | 18,890 | 6,750 |
| Jan. 31..... | 35 | 1,354 | 1,094 | 466 | 3,700 | 4,348 | 18,656 | 6,486 |
| Feb. 28..... | 11 | 795 | 645 | 125 | 1,281 | 4,436 | 17,784 | 5,276 |
| Mar. 31..... | 118 | 2,262 | 1,754 | 688 | 4,383 | 4,804 | 19,727 | 7,562 |
| Apr. 30..... | 161 | 3,216 | 1,772 | 711 | 4,327 | 4,818 | 19,736 | 7,577 |
| May 31..... | 161 | 3,295 | 1,746 | 698 | 4,346 | 4,726 | 19,664 | 7,562 |
| June 30..... | 161 | 3,251 | 1,497 | 549 | 3,987 | 4,268 | 18,512 | 6,599 |
| July 31..... | 158 | 2,320 | 1,574 | 378 | 2,775 | 4,355 | 18,451 | 6,614 |
| Aug. 31..... | 175 | 2,084 | 1,495 | 415 | 1,925 | 4,271 | 18,372 | 6,621 |
| Sept. 30..... | 155 | 2,188 | 1,551 | 562 | 1,693 | 4,362 | 18,571 | 6,586 |

## 05413500 Grant River at Burton, Wis.

LOCATION.--Lat 42°43'13", long 90°49'09", in NW¼ sec.23, T.3 N., R.4 W., Grant County, on right bank at downstream side of highway bridge at Burton, 5.9 mi (9.5 km) northwest of Potosi and 9.5 mi (15.3 km) upstream from mouth.

DRAINAGE AREA.--267 $mi^2$ (691 $km^2$).

PERIOD OF RECORD.--October 1934 to current year. Published as "near Burton" October 1934 to September 1947. Records published for both sites March to September 1947. October 1934, monthly discharge only, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 606.89 ft (184.980 m) above mean sea level, adjustment of 1912. Oct. 17, 1934, to Sept. 30, 1947, nonrecording gage at site 6 mi (10 km) upstream at datum 33.18 ft (10.113 m) higher. Mar. 18, 1947, to July 27, 1949, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--39 years, 162 $ft^3/s$ (4.588 $m^3/s$), 8.24 in/yr (209 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,770 $ft^3/s$ (192 $m^3/s$) Dec. 30, gage height, 21.14 ft (6.443 m); minimum, 127 $ft^3/s$ (3.59 $m^3/s$) Feb. 8, gage height, 5.73 ft (1.746 m), result of freezeup.
Period of record: Maximum discharge, 25,000 $ft^3/s$ (708 $m^3/s$) July 16, 1950, gage height, 24.82 ft (7.565 m), from rating curve extended above 18,000 $ft^3/s$ (510 $m^3/s$) on basis of slope-area measurement of peak flow; minimum, 21 $ft^3/s$ (0.59 $m^3/s$) Mar. 4, 1954, result of freezeup.

REMARKS.--Records good except those for winter period, which are fair.

COOPERATION.--Four discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1308: 1935-37(M), 1941(M), 1945-46(M), 1949(M). WSP 1728: 1942(M).

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 4-29, Jan. 2-16, Feb. 8-22.)

| Oct. 1 to Feb. 2 | | | | Feb. 3 to Sept. 30 | | | |
|---|---|---|---|---|---|---|---|
| 6.0 | 152 | 14.0 | 1,151 | 6.0 | 152 | 12.0 | 1,075 |
| 8.0 | 296 | 16.0 | 1,491 | 7.0 | 253 | 14.0 | 1,575 |
| 10.0 | 536 | 18.0 | 2,220 | 8.0 | 368 | 16.0 | 2,240 |
| 12.0 | 825 | 20.0 | 4,480 | 10.0 | 635 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 208 | 226 | 193 | 372 | 2,020 | 231 | 354 | 553 | 404 | 315 | 243 | 217 |
| 2 | 203 | 325 | 192 | 340 | 850 | 397 | 344 | 626 | 396 | 312 | 239 | 214 |
| 3 | 199 | 290 | 188 | 300 | 297 | 277 | 310 | 554 | 462 | 698 | 238 | 270 |
| 4 | 197 | 241 | 190 | 250 | 235 | 232 | 304 | 491 | 421 | 445 | 271 | 222 |
| 5 | 196 | 232 | 190 | 190 | 226 | 214 | 296 | 462 | 462 | 338 | 276 | 220 |
| 6 | 207 | 226 | 180 | 180 | 208 | 289 | 287 | 463 | 394 | 320 | 240 | 198 |
| 7 | 206 | 241 | 180 | 170 | 197 | 1,910 | 282 | 595 | 375 | 312 | 251 | 196 |
| 8 | 197 | 233 | 180 | 170 | 180 | 390 | 278 | 830 | 366 | 300 | 249 | 201 |
| 9 | 192 | 223 | 180 | 170 | 170 | 297 | 294 | 636 | 354 | 298 | 249 | 312 |
| 10 | 187 | 222 | 180 | 160 | 170 | 345 | 240 | 561 | 345 | 320 | 242 | 246 |
| 11 | 213 | 218 | 170 | 160 | 160 | 1,230 | 324 | 508 | 342 | 292 | 232 | 218 |
| 12 | 195 | 213 | 170 | 160 | 160 | 558 | 351 | 497 | 386 | 285 | 227 | 207 |
| 13 | 188 | 211 | 170 | 160 | 160 | 414 | 396 | 459 | 379 | 283 | 226 | 205 |
| 14 | 187 | 216 | 170 | 170 | 160 | 1,200 | 464 | 437 | 337 | 275 | 248 | 206 |
| 15 | 183 | 210 | 170 | 180 | 160 | 602 | 680 | 422 | 455 | 274 | 233 | 199 |
| 16 | 186 | 207 | 170 | 230 | 160 | 485 | 1,670 | 415 | 1,320 | 270 | 229 | 201 |
| 17 | 186 | 208 | 170 | 2,230 | 160 | 456 | 925 | 403 | 1,150 | 265 | 224 | 244 |
| 18 | 181 | 206 | 170 | 1,960 | 160 | 402 | 641 | 400 | 521 | 263 | 226 | 244 |
| 19 | 180 | 204 | 170 | 963 | 170 | 374 | 561 | 412 | 516 | 261 | 270 | 211 |
| 20 | 180 | 203 | 170 | 250 | 170 | 361 | 648 | 385 | 432 | 265 | 233 | 205 |
| 21 | 228 | 202 | 170 | 219 | 180 | 343 | 965 | 378 | 404 | 274 | 222 | 246 |
| 22 | 252 | 201 | 170 | 219 | 190 | 328 | 724 | 378 | 384 | 339 | 224 | 267 |
| 23 | 504 | 197 | 170 | 225 | 280 | 319 | 582 | 378 | 373 | 296 | 285 | 209 |
| 24 | 327 | 197 | 170 | 196 | 320 | 308 | 525 | 375 | 362 | 278 | 266 | 202 |
| 25 | 280 | 204 | 170 | 217 | 210 | 304 | 484 | 447 | 351 | 273 | 234 | 251 |
| 26 | 262 | 211 | 170 | 244 | 180 | 295 | 460 | 386 | 356 | 272 | 229 | 227 |
| 27 | 242 | 205 | 170 | 225 | 190 | 280 | 434 | 533 | 360 | 284 | 222 | 211 |
| 28 | 229 | 196 | 180 | 323 | 200 | 274 | 419 | 805 | 339 | 257 | 214 | 205 |
| 29 | 220 | 190 | 210 | 177 | ------ | 273 | 436 | 497 | 325 | 252 | 211 | 221 |
| 30 | 211 | 190 | 4,010 | 190 | ------ | 264 | 474 | 446 | 321 | 256 | 208 | 232 |
| 31 | 210 | ------ | 1,710 | 184 | ------ | 264 | ------ | 420 | ------ | 248 | 209 | ------ |
| TOTAL | 6,836 | 6,548 | 10,853 | 11,184 | 7,923 | 13,916 | 15,152 | 15,152 | 13,392 | 9,420 | 7,370 | 6,707 |
| MEAN | 221 | 218 | 350 | 361 | 283 | 449 | 505 | 489 | 446 | 304 | 238 | 224 |
| MAX | 504 | 325 | 4,010 | 2,230 | 2,020 | 1,910 | 1,670 | 830 | 1,320 | 698 | 285 | 312 |
| MIN | 180 | 190 | 170 | 160 | 160 | 214 | 240 | 375 | 321 | 248 | 208 | 196 |
| CFSM | .83 | .82 | 1.31 | 1.35 | 1.06 | 1.68 | 1.89 | 1.83 | 1.67 | 1.14 | .89 | .84 |
| IN. | .95 | .91 | 1.51 | 1.56 | 1.10 | 1.94 | 2.11 | 2.11 | 1.87 | 1.31 | 1.03 | .93 |

CAL YR 1972 TOTAL 81,258 MEAN 222 MAX 4,010 MIN 64 CFSM .83 IN 11.32
WTR YR 1973 TOTAL 124,453 MEAN 341 MAX 4,010 MIN 160 CFSM 1.28 IN 17.34

PEAK DISCHARGE (BASE, 2,400 $FT^3/S$)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 12-30 | 2200 | 21.14 | 6,770 | 3- 7 | 0845 | 16.91 | 2,620 |
| 1-17 | 1915 | 19.52 | 3,750 | 4-16 | 1400 | 16.48 | 2,430 |
| 2- 1 | 2230 | 20.06 | 4,590 | 6-16 | 2315 | 19.51 | 4,280 |

## 05414000 Platte River near Rockville, Wis.

LOCATION.--Lat 42°43'52", long 90°38'25", in SW¼ sec.17, T.3 N., R.2 W., Grant County, on right bank just downstream from bridge on County Trunk Highway B, 0.8 mi (1.3 km) upstream from Blakely Branch, 2.2 mi (3.5 km) east of Rockville, 4.5 mi (7.2 km) northeast of Potosi, and 15.2 mi (24.5 km) upstream from mouth.

DRAINAGE AREA.--139 $mi^2$ (360 $km^2$).

PERIOD OF RECORD.--October 1934 to current year. Monthly discharge only for October and November 1934, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 642.96 ft (195.974 m) above mean sea level, adjustment of 1912. Prior to Oct. 1, 1941, nonrecording gage at site 1.5 mi (2.1 km) upstream at datum 12.55 ft (3.82 m) higher. Oct. 1, 1941, to June 29, 1949, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--39 years, 95.8 $ft^3/s$ (2.713 $m^3/s$), 9.36 in/yr (238 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,250 $ft^3/s$ (149 $m^3/s$) Dec. 30, gage height, 10.83 ft (3.30 m); minimum, 59 $ft^3/s$ (1.67 $m^3/s$) Dec. 4, gage height, 3.23 ft (0.985 m), result of freezeup.
Period of record: Maximum discharge, 43,500 $ft^3/s$ (1,230 $m^3/s$) July 16, 1950, gage height, 17.26 ft (5.26 m), from rating curve extended above 7,000 $ft^3/s$ (198 $m^3/s$) on basis of slope-area measurement of peak flow; no flow Nov. 24, 1950.

REMARKS.--Records fair.

COOPERATION.--Four discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1438: 1935-36, 1937(M), 1939(M), 1941-43, 1946(M).

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 5, 7-29, Jan. 3-17, Feb. 9-22.)

| Oct. 1 to Dec. 30 | | | | Dec. 31 to Sept. 30 | | | |
|---|---|---|---|---|---|---|---|
| 3.3 | 77 | 6.0 | 750 | 3.3 | 61 | 6.0 | 750 |
| 3.6 | 109 | 7.0 | 1,050 | 3.6 | 113 | 7.0 | 1,050 |
| 4.0 | 184 | 8.0 | 1,500 | 4.0 | 194 | 8.0 | 1,600 |
| 5.0 | 450 | 9.0 | 2,340 | 5.0 | 450 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 96 | 114 | 93 | 212 | 1,130 | 167 | 150 | 349 | 198 | 159 | 107 | 96 |
| 2 | 91 | 139 | 91 | 175 | 444 | 264 | 167 | 639 | 196 | 155 | 105 | 438 |
| 3 | 88 | 131 | 86 | 140 | 155 | 216 | 145 | 432 | 212 | 500 | 104 | 279 |
| 4 | 87 | 119 | 86 | 120 | 125 | 143 | 153 | 368 | 201 | 270 | 107 | 184 |
| 5 | 86 | 116 | 86 | 90 | 115 | 121 | 149 | 318 | 238 | 190 | 109 | 129 |
| 6 | 90 | 116 | 84 | 82 | 107 | 318 | 141 | 313 | 205 | 170 | 105 | 113 |
| 7 | 88 | 119 | 84 | 80 | 100 | 1,270 | 129 | 357 | 173 | 160 | 105 | 107 |
| 8 | 86 | 116 | 82 | 80 | 82 | 255 | 120 | 468 | 165 | 150 | 105 | 109 |
| 9 | 83 | 112 | 82 | 78 | 80 | 175 | 120 | 379 | 167 | 140 | 109 | 151 |
| 10 | 81 | 112 | 82 | 78 | 78 | 155 | 110 | 326 | 159 | 140 | 105 | 129 |
| 11 | 88 | 109 | 80 | 76 | 76 | 660 | 149 | 318 | 161 | 135 | 96 | 117 |
| 12 | 86 | 106 | 80 | 76 | 76 | 303 | 153 | 310 | 203 | 129 | 94 | 107 |
| 13 | 81 | 106 | 80 | 76 | 76 | 262 | 184 | 291 | 184 | 127 | 100 | 104 |
| 14 | 81 | 109 | 78 | 76 | 74 | 945 | 198 | 264 | 167 | 119 | 131 | 104 |
| 15 | 79 | 105 | 78 | 82 | 74 | 396 | 333 | 248 | 205 | 127 | 104 | 104 |
| 16 | 79 | 103 | 78 | 100 | 74 | 303 | 1,070 | 243 | 999 | 125 | 100 | 104 |
| 17 | 79 | 105 | 78 | 900 | 74 | 262 | 600 | 234 | 432 | 123 | 100 | 135 |
| 18 | 77 | 103 | 78 | 492 | 76 | 230 | 420 | 214 | 272 | 121 | 100 | 129 |
| 19 | 77 | 105 | 78 | 450 | 76 | 205 | 346 | 230 | 255 | 121 | 100 | 113 |
| 20 | 79 | 105 | 78 | 173 | 78 | 184 | 288 | 236 | 218 | 119 | 102 | 105 |
| 21 | 105 | 103 | 78 | 140 | 82 | 177 | 405 | 220 | 201 | 119 | 98 | 157 |
| 22 | 130 | 99 | 80 | 137 | 92 | 167 | 362 | 207 | 192 | 163 | 98 | 127 |
| 23 | 278 | 97 | 80 | 151 | 151 | 163 | 357 | 203 | 209 | 139 | 151 | 111 |
| 24 | 184 | 96 | 80 | 98 | 181 | 153 | 286 | 194 | 190 | 129 | 127 | 107 |
| 25 | 160 | 99 | 80 | 141 | 98 | 153 | 279 | 207 | 177 | 125 | 113 | 161 |
| 26 | 146 | 102 | 80 | 181 | 84 | 153 | 252 | 190 | 177 | 129 | 109 | 127 |
| 27 | 133 | 99 | 80 | 175 | 89 | 133 | 238 | 346 | 175 | 131 | 104 | 119 |
| 28 | 126 | 93 | 82 | 281 | 89 | 129 | 225 | 320 | 169 | 123 | 100 | 115 |
| 29 | 119 | 91 | 88 | 104 | ------ | 149 | 240 | 255 | 163 | 119 | 100 | 167 |
| 30 | 112 | 93 | 1,840 | 188 | ------ | 133 | 260 | 225 | 161 | 119 | 96 | 143 |
| 31 | 112 | ------ | 582 | 145 | ------ | 131 | ------ | 212 | ------ | 113 | 96 | ------ |
| TOTAL | 3,287 | 3,222 | 4,792 | 5,377 | 4,036 | 8,475 | 8,029 | 9,116 | 6,824 | 4,689 | 3,280 | 4,191 |
| MEAN | 106 | 107 | 155 | 173 | 144 | 273 | 268 | 294 | 227 | 151 | 106 | 140 |
| MAX | 278 | 139 | 1,840 | 900 | 1,130 | 1,270 | 1,070 | 639 | 999 | 500 | 151 | 438 |
| MIN | 77 | 91 | 78 | 76 | 74 | 121 | 110 | 190 | 159 | 113 | 94 | 96 |
| CFSM | .76 | .77 | 1.12 | 1.24 | 1.04 | 1.96 | 1.93 | 2.12 | 1.63 | 1.09 | .76 | 1.01 |
| IN. | .88 | .86 | 1.28 | 1.44 | 1.08 | 2.27 | 2.15 | 2.44 | 1.83 | 1.25 | .88 | 1.12 |

CAL YR 1972 TOTAL 40,716 MEAN 111 MAX 1,840 MIN 42 CFSM .80 IN 10.90
WTR YR 1973 TOTAL 65,318 MEAN 179 MAX 1,840 MIN 74 CFSM 1.29 IN 17.48

PEAK DISCHARGE (BASE, 2,100 $FT^3/S$)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 12-30 | 1615 | 10.83 | 5,250 | 3- 7 | 0300 | 9.30 | 2,700 |
| 1-17 | -- | -- | a2,400 | 6-16 | 1815 | 9.95 | 3,620 |
| 2- 1 | 1615 | 9.76 | 3,330 | | | | |

a About.

## 05415000 Galena River at Buncombe, Wis.

LOCATION.--Lat 42°30'49", long 90°22'40", in SW¼ sec.33, T.1 N., R.1 E., Lafayette County, on left bank at Buncombe, 0.6 mi (1.0 km) upstream from Coon Branch, 1.5 mi (2.4 km) upstream from Scrabble Branch, 2.0 mi (3.2 km) upstream from Wisconsin-Illinois State line, and 3.5 mi (5.6 km) southeast of Hazel Green.

DRAINAGE AREA.--128 $mi^2$ (332 $km^2$).

PERIOD OF RECORD.--September 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 682.77 ft (208.108 m) above mean sea level, adjustment of 1912 (Corps of Engineers bench mark). Prior to Dec. 1, 1939, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--34 years, 75.6 $ft^3/s$ (2.141 $m^3/s$), 8.02 in/yr (204 mm/yr).

EXTREMES.--Current year: Maximum discharge, about 3,200 $ft^3/s$ (90.6 $m^3/s$) Dec. 30, gage height, 13.47 ft (4.106 m), backwater from ice; minimum, 31 $ft^3/s$ (0.88 $m^3/s$) Feb. 16, gage height, 2.92 ft (0.890 m), result of freezeup.

Period of record: Maximum discharge, 29,700 $ft^3/s$ (841 $m^3/s$) June 29, 1969, gage height, 19.57 ft (5.965 m) from rating curve extended above 8,100 $ft^3/s$ (229 $m^3/s$) on basis of slope-area measurements at gage heights 15.68 ft (4.779 m) and 19.57 ft (5.965 m); minimum, 0.8 $ft^3/s$ (0.023 $m^3/s$) Mar. 3, 1954.

Flood in February 1937 reached a stage of about 17.1 ft (5.212 m), from information by local resident, discharge, 18,000 $ft^3/s$ (510 $m^3/s$).

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 1438: 1942(P), 1943(M), 1944(P), 1945(M).

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 1 to Jan. 19, Feb. 7-25.)

| Oct. 1 to Dec. 29 | | | | Dec. 30 to Sept. 30 | | | |
|---|---|---|---|---|---|---|---|
| 3.5 | 63 | 5.0 | 314 | 3.3 | 57 | 6.0 | 650 |
| 4.0 | 127 | 6.0 | 602 | 3.6 | 86 | 7.0 | 1,000 |
| | | | | 4.0 | 146 | 8.0 | 1,420 |
| | | | | 5.0 | 362 | 9.0 | 1,950 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 144 | 133 | 90 | 160 | 826 | 291 | 184 | 440 | 204 | 114 | 86 | 71 |
| 2 | 129 | 188 | 86 | 110 | 390 | 368 | 194 | 981 | 208 | 112 | 84 | 104 |
| 3 | 119 | 158 | 84 | 100 | 139 | 234 | 166 | 421 | 216 | 275 | 84 | 115 |
| 4 | 114 | 141 | 80 | 82 | 108 | 141 | 164 | 340 | 198 | 173 | 84 | 82 |
| 5 | 109 | 135 | 72 | 78 | 102 | 122 | 155 | 386 | 194 | 130 | 88 | 76 |
| 6 | 119 | 132 | 66 | 74 | 92 | 115 | 144 | 298 | 180 | 120 | 84 | 71 |
| 7 | 112 | 136 | 68 | 72 | 88 | 250 | 141 | 484 | 173 | 114 | 82 | 69 |
| 8 | 103 | 129 | 68 | 68 | 80 | 620 | 141 | 373 | 166 | 108 | 84 | 70 |
| 9 | 94 | 123 | 68 | 66 | 74 | 350 | 122 | 301 | 159 | 106 | 86 | 88 |
| 10 | 89 | 121 | 68 | 66 | 74 | 180 | 108 | 271 | 153 | 105 | 84 | 82 |
| 11 | 98 | 119 | 68 | 66 | 72 | 382 | 168 | 250 | 150 | 99 | 78 | 73 |
| 12 | 91 | 114 | 68 | 66 | 72 | 252 | 190 | 248 | 168 | 99 | 78 | 69 |
| 13 | 87 | 114 | 68 | 68 | 70 | 212 | 216 | 232 | 157 | 101 | 78 | 70 |
| 14 | 85 | 120 | 68 | 72 | 68 | 502 | 262 | 222 | 144 | 98 | 80 | 70 |
| 15 | 80 | 117 | 68 | 80 | 66 | 260 | 401 | 214 | 159 | 96 | 82 | 67 |
| 16 | 85 | 116 | 68 | 250 | 62 | 236 | 605 | 208 | 284 | 96 | 83 | 68 |
| 17 | 79 | 116 | 70 | 380 | 62 | 230 | 337 | 198 | 256 | 94 | 78 | 101 |
| 18 | 75 | 112 | 72 | 520 | 64 | 196 | 282 | 198 | 173 | 92 | 78 | 85 |
| 19 | 73 | 107 | 74 | 580 | 68 | 184 | 260 | 210 | 182 | 92 | 82 | 73 |
| 20 | 75 | 105 | 78 | 157 | 70 | 173 | 429 | 192 | 153 | 92 | 84 | 71 |
| 21 | 117 | 103 | 82 | 137 | 70 | 162 | 587 | 186 | 142 | 94 | 82 | 220 |
| 22 | 195 | 102 | 80 | 210 | 72 | 155 | 457 | 200 | 137 | 100 | 70 | 157 |
| 23 | 468 | 99 | 78 | 198 | 80 | 148 | 329 | 194 | 137 | 120 | 90 | 84 |
| 24 | 219 | 99 | 76 | 111 | 150 | 139 | 286 | 188 | 137 | 100 | 85 | 77 |
| 25 | 184 | 107 | 76 | 123 | 180 | 139 | 264 | 212 | 128 | 98 | 78 | 126 |
| 26 | 169 | 113 | 74 | 150 | 88 | 132 | 246 | 188 | 132 | 98 | 75 | 91 |
| 27 | 155 | 103 | 74 | 148 | 111 | 123 | 230 | 590 | 128 | 98 | 71 | 99 |
| 28 | 147 | 94 | 74 | 258 | 109 | 122 | 220 | 382 | 123 | 96 | 68 | 117 |
| 29 | 139 | 90 | 110 | 97 | ------ | 123 | 269 | 260 | 118 | 90 | 67 | 311 |
| 30 | 129 | 93 | 1,700 | 123 | ------ | 118 | 275 | 234 | 115 | 90 | 66 | 133 |
| 31 | 132 | ------ | 460 | 106 | ------ | 125 | ------ | 216 | ------ | 90 | 68 | ------ |
| TOTAL | 4,014 | 3,539 | 4,336 | 4,776 | 3,507 | 6,984 | 7,832 | 9,157 | 4,896 | 3,300 | 2,464 | 2,990 |
| MEAN | 129 | 118 | 140 | 154 | 125 | 225 | 261 | 295 | 163 | 109 | 79.5 | 99.7 |
| MAX | 468 | 188 | 1,700 | 580 | 826 | 820 | 605 | 981 | 256 | 275 | 90 | 311 |
| MIN | 73 | 90 | 66 | 66 | 62 | 115 | 108 | 186 | 115 | 90 | 66 | 67 |
| CFSM | 1.01 | .92 | 1.09 | 1.20 | .98 | 1.76 | 2.04 | 2.30 | 1.27 | .85 | .62 | .78 |
| IN. | 1.17 | 1.03 | 1.26 | 1.39 | 1.02 | 2.03 | 2.28 | 2.66 | 1.42 | .99 | .72 | .87 |

CAL YR 1972 TOTAL 33,891 MEAN 92.6 MAX 1,740 MIN 16 CFSM .72 IN 9.85
WTR YR 1973 TOTAL 57,885 MEAN 159 MAX 1,700 MIN 62 CFSM 1.24 IN 16.82

PEAK DISCHARGE (BASE, 3,000 $FT^3/S$)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 12-30 | -- | -- | a3,200 | 1-16 | -- | -- | a3,000 |

a About.

## 05426000 Crawfish River at Milford, Wis.

**LOCATION.**--Lat 43°06'00", long 88°50'58", in SW¼ sec.4, T.7 N., R.14 E., Jefferson County, near left bank on upstream side of highway bridge in Milford, 1.4 mi (2.2 km) downstream from Rock Creek and 9.8 mi (15.8 km) upstream from mouth.

**DRAINAGE AREA.**--732 mi² (1,896 km²).

**PERIOD OF RECORD.**--June 1931 to current year.

**GAGE.**--Water-stage recorder. Datum of gage is 779.40 ft (237.561 m) above mean sea level. Prior to July 28, 1966, nonrecording gage at present site and datum.

**AVERAGE DISCHARGE.**--42 years, 345 ft³/s (9.770 m³/s), 6.40 in/yr (163 mm/yr).

**EXTREMES.**--Current year: Maximum discharge, 3,440 ft³/s (97.4 m³/s) Mar. 17, gage height, 8.21 ft (2.502 m); minimum, 45 ft³/s (1.27 m³/s) Aug. 7, gage height, 1.69 ft (0.515 m).
Period of record: Maximum discharge, 6,140 ft³/s (174 m³/s) Apr. 6, 1959, gage height, 11.15 ft (3.398 m); minimum observed, 0.2 ft³/s (0.006 m³/s) Sept. 15, 1958, gage height, 1.11 ft (0.338 m).

**REMARKS.**--Records good except those for winter periods, which are fair. Some diurnal fluctuation at low flow possible, due to small dams upstream.

**REVISIONS (WATER YEARS).**--WSP 805: Drainage area. WSP 975: 1937-38. WSP 1438: 1932-33(M), 1935(M), 1937, 1938-41(M), 1943-44(M), 1947-48(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 30 to Dec. 29, Jan. 8-18, Feb. 15-20.)

| | | | |
|---|---|---|---|
| 1.8 | 63 | 5.0 | 1,450 |
| 2.0 | 112 | 7.0 | 2,550 |
| 2.5 | 280 | 9.0 | 4,100 |
| 3.0 | 495 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,780 | 1,190 | 310 | 710 | 1,490 | 461 | 1,380 | 2,400 | 2,210 | 217 | 123 | 94 |
| 2 | 1,750 | 1,170 | 300 | 775 | 1,670 | 616 | 1,370 | 2,650 | 2,140 | 213 | 115 | 102 |
| 3 | 1,670 | 1,190 | 290 | 843 | 1,730 | 834 | 1,390 | 2,920 | 2,030 | 196 | 102 | 96 |
| 4 | 1,620 | 1,190 | 270 | 915 | 1,800 | 996 | 1,460 | 3,050 | 1,960 | 196 | 89 | 102 |
| 5 | 1,550 | 1,170 | 260 | 947 | 1,870 | 1,140 | 1,430 | 3,050 | 1,880 | 179 | 86 | 118 |
| 6 | 1,490 | 1,160 | 250 | 920 | 1,880 | 1,300 | 1,450 | 2,980 | 1,800 | 140 | 77 | 126 |
| 7 | 1,390 | 1,180 | 230 | 871 | 1,820 | 1,870 | 1,480 | 2,940 | 1,660 | 129 | 70 | 129 |
| 8 | 1,330 | 1,150 | 230 | 800 | 1,900 | 2,150 | 1,470 | 2,980 | 1,510 | 153 | 91 | 129 |
| 9 | 1,250 | 1,110 | 220 | 660 | 1,890 | 2,470 | 1,480 | 2,920 | 1,450 | 156 | 104 | 134 |
| 10 | 1,160 | 1,090 | 220 | 540 | 1,720 | 2,720 | 1,410 | 2,900 | 1,340 | 169 | 109 | 134 |
| 11 | 1,110 | 1,060 | 210 | 500 | 1,570 | 2,890 | 1,240 | 2,900 | 1,220 | 156 | 112 | 143 |
| 12 | 1,080 | 1,030 | 210 | 490 | 1,440 | 3,050 | 1,240 | 2,840 | 1,170 | 115 | 112 | 129 |
| 13 | 1,080 | 1,020 | 210 | 410 | 1,310 | 3,040 | 1,240 | 2,730 | 1,070 | 150 | 102 | 118 |
| 14 | 966 | 1,020 | 210 | 400 | 1,200 | 3,140 | 1,250 | 2,590 | 959 | 156 | 115 | 118 |
| 15 | 877 | 929 | 210 | 400 | 1,100 | 3,200 | 1,250 | 2,440 | 863 | 150 | 102 | 109 |
| 16 | 808 | 893 | 210 | 430 | 1,000 | 3,350 | 1,330 | 2,300 | 798 | 137 | 96 | 104 |
| 17 | 764 | 870 | 210 | 450 | 920 | 3,400 | 1,450 | 2,210 | 729 | 126 | 96 | 120 |
| 18 | 695 | 846 | 210 | 600 | 820 | 3,230 | 1,580 | 2,050 | 666 | 120 | 102 | 118 |
| 19 | 620 | 821 | 210 | 956 | 720 | 3,060 | 1,640 | 1,960 | 608 | 123 | 118 | 109 |
| 20 | 544 | 775 | 210 | 1,130 | 660 | 2,930 | 1,680 | 1,860 | 540 | 129 | 140 | 134 |
| 21 | 529 | 725 | 210 | 1,310 | 599 | 2,760 | 2,070 | 1,740 | 491 | 120 | 123 | 107 |
| 22 | 586 | 673 | 210 | 1,490 | 558 | 2,590 | 2,430 | 1,680 | 455 | 115 | 104 | 120 |
| 23 | 799 | 584 | 210 | 1,630 | 496 | 2,440 | 2,780 | 1,610 | 410 | 109 | 115 | 134 |
| 24 | 926 | 524 | 210 | 1,710 | 444 | 2,320 | 2,970 | 1,510 | 396 | 118 | 126 | 118 |
| 25 | 1,010 | 499 | 210 | 1,750 | 413 | 2,230 | 2,990 | 1,550 | 348 | 118 | 129 | 120 |
| 26 | 1,100 | 486 | 220 | 1,780 | 411 | 2,110 | 2,900 | 1,550 | 320 | 120 | 132 | 120 |
| 27 | 1,210 | 463 | 230 | 1,770 | 446 | 1,940 | 2,760 | 1,650 | 308 | 120 | 137 | 140 |
| 28 | 1,270 | 396 | 250 | 1,740 | 444 | 1,810 | 2,570 | 1,950 | 292 | 129 | 132 | 170 |
| 29 | 1,270 | 363 | 280 | 1,670 | ------ | 1,700 | 2,430 | 2,110 | 261 | 107 | 126 | 180 |
| 30 | 1,250 | 350 | 433 | 1,570 | ------ | 1,580 | 2,400 | 2,210 | 234 | 112 | 115 | 180 |
| 31 | 1,220 | ------ | 633 | 1,500 | ------ | 1,460 | ------ | 2,230 | ------ | 129 | 112 | ------ |
| TOTAL | 34,623 | 25,929 | 7,776 | 31,667 | 32,321 | 68,787 | 54,520 | 72,460 | 30,118 | 4,407 | 3,412 | 3,755 |
| MEAN | 1,117 | 864 | 251 | 1,022 | 1,154 | 2,219 | 1,817 | 2,337 | 1,004 | 142 | 110 | 125 |
| MAX | 1,780 | 1,190 | 633 | 1,780 | 1,900 | 3,400 | 2,990 | 3,050 | 2,210 | 217 | 140 | 180 |
| MIN | 529 | 350 | 210 | 400 | 411 | 461 | 1,240 | 1,510 | 234 | 107 | 70 | 94 |
| CFSM | 1.53 | 1.18 | .34 | 1.40 | 1.58 | 3.03 | 2.48 | 3.19 | 1.37 | .19 | .15 | .17 |
| IN. | 1.76 | 1.32 | .40 | 1.61 | 1.64 | 3.50 | 2.77 | 3.68 | 1.53 | .22 | .17 | .19 |

CAL YR 1972 TOTAL 188,301 MEAN 514 MAX 2,260 MIN 56 CFSM .70 IN 9.57
WTR YR 1973 TOTAL 369,775 MEAN 1,013 MAX 3,400 MIN 70 CFSM 1.38 IN 18.79

PEAK DISCHARGE (BASE, 1,250 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 10-28 | 1900 | 4.69 | 1,280 | 3-17 | 0800 | 8.21 | 3,440 |
| 2- 9 | 0900 | 5.99 | 2,000 | 5- 4 | 1800 | 7.77 | 3,090 |

## 05428000 Lake Mendota at Madison, Wis.

LOCATION.--Lat 43°05'42", long 89°22'12", in SE¼ sec.12, T.7 N., R.9 E., Dane County, attached to left wall of lock of dam at outlet, in Madison.

DRAINAGE AREA.--233 $mi^2$ (603 $km^2$), revised. Area of Lake Mendota, 15.2 $mi^2$ (39.4 $km^2$).

PERIOD OF RECORD.--December 1902 to May 1903, January 1916 to current year (incomplete).

GAGE.--Water-stage recorder. Datum of gage is 847.82 ft (258.416 m) above mean sea level, or 2.22 ft (0.677 m) above city of Madison datum. Prior to Nov. 15, 1971, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum gage height, 3.33 ft (1.015 m) Mar. 15, 16, 17; minimum, 1.39 ft (0.424 m) Sept. 22.
Period of record: Maximum gage height observed, 4.19 ft (1.277 m) Apr. 5, 1959; minimum observed, 0.20 ft (0.061 m) Feb. 24 to Mar. 10, 1920.

REMARKS.--Lake level regulated by concrete dam with two 12-foot tainter gates and 20-foot lock at outlet.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.36 | 2.25 | 1.88 | 1.75 | 1.94 | 1.79 | 2.69 | 2.78 | 2.97 | 2.34 | 1.79 | 1.43 |
| 2 | 2.34 | 2.30 | 1.87 | 1.75 | 2.07 | 1.85 | 2.76 | 2.96 | 2.95 | 2.33 | 1.75 | 1.46 |
| 3 | 2.32 | 2.32 | 1.85 | 1.76 | 2.18 | 1.93 | 2.75 | 3.04 | 2.95 | 2.31 | 1.71 | 1.59 |
| 4 | 2.32 | 2.32 | 1.81 | 1.77 | 2.24 | 2.00 | 2.75 | 3.03 | 2.96 | 2.31 | 1.67 | 1.65 |
| 5 | 2.31 | 2.30 | 1.79 | 1.77 | 2.26 | 2.04 | 2.71 | 3.01 | 2.96 | 2.27 | 1.64 | 1.71 |
| 6 | 2.30 | 2.30 | 1.85 | 1.76 | 2.26 | 2.07 | 2.68 | 2.98 | 2.93 | 2.24 | 1.60 | 1.71 |
| 7 | 2.27 | 2.33 | 1.82 | 1.75 | 2.26 | 2.51 | 2.65 | 3.02 | 2.91 | 2.19 | 1.56 | 1.68 |
| 8 | 2.25 | 2.31 | 1.82 | 1.73 | 2.25 | 2.86 | 2.62 | 3.14 | 2.89 | 2.16 | 1.57 | 1.66 |
| 9 | 2.21 | 2.30 | 1.82 | 1.71 | 2.23 | 3.05 | 2.66 | 3.20 | 2.86 | 2.21 | 1.65 | 1.68 |
| 10 | 2.17 | 2.30 | 1.82 | 1.71 | 2.21 | 3.13 | 2.66 | 3.20 | 2.84 | 2.34 | 1.65 | 1.68 |
| 11 | 2.18 | 2.30 | 1.79 | 1.71 | 2.19 | 3.22 | 2.61 | 3.18 | 2.83 | 2.33 | 1.63 | 1.66 |
| 12 | 2.18 | 2.29 | 1.80 | 1.68 | 2.17 | 3.26 | 2.60 | 3.15 | 2.82 | 2.31 | 1.61 | 1.63 |
| 13 | 2.17 | 2.27 | 1.81 | 1.65 | 2.15 | 3.25 | 2.58 | 3.11 | 2.79 | 2.29 | 1.59 | 1.60 |
| 14 | 2.16 | 2.25 | 1.79 | 1.64 | 2.16 | 3.30 | 2.55 | 3.08 | 2.76 | 2.26 | 1.60 | 1.59 |
| 15 | 2.12 | 2.21 | 1.78 | 1.62 | 2.13 | 3.31 | 2.56 | 3.04 | 2.72 | 2.23 | 1.58 | 1.57 |
| 16 | 2.12 | 2.18 | 1.75 | 1.61 | 2.11 | 3.31 | 2.65 | 3.00 | 2.71 | 2.20 | 1.57 | 1.54 |
| 17 | 2.09 | 2.16 | 1.75 | 1.62 | 2.08 | 3.31 | 2.68 | 2.96 | 2.71 | 2.16 | 1.56 | 1.56 |
| 18 | 2.05 | 2.13 | 1.74 | 1.68 | 2.05 | 3.26 | 2.69 | 2.91 | 2.68 | 2.13 | 1.55 | 1.56 |
| 19 | 2.02 | 2.11 | 1.73 | 1.82 | 2.02 | 3.21 | 2.68 | 2.95 | 2.66 | 2.11 | 1.54 | 1.53 |
| 20 | 2.00 | 2.09 | 1.72 | 1.89 | 2.01 | 3.17 | 2.68 | 2.92 | 2.64 | 2.08 | 1.54 | 1.51 |
| 21 | 2.05 | 2.07 | 1.71 | 1.93 | 1.98 | 3.12 | 2.79 | 2.90 | 2.60 | 2.04 | 1.50 | 1.48 |
| 22 | 2.12 | 2.05 | 1.69 | 1.96 | 1.95 | 3.07 | 2.84 | 2.89 | 2.57 | 2.04 | 1.47 | 1.50 |
| 23 | 2.22 | 2.02 | 1.68 | 1.96 | 1.93 | 3.02 | 2.84 | 2.87 | 2.55 | 2.01 | 1.51 | 1.48 |
| 24 | 2.25 | 1.99 | 1.67 | 1.95 | 1.90 | 2.98 | 2.82 | 2.84 | 2.53 | 2.02 | 1.53 | 1.45 |
| 25 | 2.24 | 1.98 | 1.66 | 1.94 | 1.88 | 2.94 | 2.79 | 2.86 | 2.49 | 2.02 | 1.53 | 1.49 |
| 26 | 2.24 | 1.99 | 1.65 | 1.94 | 1.85 | 2.89 | 2.75 | 2.85 | 2.47 | 2.00 | 1.53 | 1.50 |
| 27 | 2.25 | 1.97 | 1.64 | 1.94 | 1.82 | 2.83 | 2.72 | 2.87 | 2.46 | 1.97 | 1.53 | 1.52 |
| 28 | 2.26 | 1.95 | 1.62 | 1.95 | 1.80 | 2.79 | 2.67 | 2.97 | 2.44 | 1.91 | 1.51 | 1.54 |
| 29 | 2.25 | 1.91 | 1.64 | 1.93 | ------ | 2.74 | 2.66 | 2.99 | 2.40 | 1.87 | 1.50 | 1.57 |
| 30 | 2.23 | 1.90 | 1.70 | 1.93 | ------ | 2.70 | 2.71 | 2.99 | 2.37 | 1.86 | 1.47 | 1.60 |
| 31 | 2.23 | ------ | 1.74 | 1.92 | ------ | 2.66 | ------ | 2.99 | ------ | 1.83 | 1.46 | ------ |
| MEAN | 2.20 | 2.16 | 1.75 | 1.80 | 2.07 | 2.82 | 2.69 | 2.99 | 2.71 | 2.14 | 1.58 | 1.57 |
| MAX | 2.36 | 2.33 | 1.88 | 1.96 | 2.26 | 3.31 | 2.84 | 3.20 | 2.97 | 2.34 | 1.79 | 1.71 |
| MIN | 2.00 | 1.90 | 1.62 | 1.61 | 1.80 | 1.79 | 2.55 | 2.78 | 2.37 | 1.83 | 1.46 | 1.43 |

## ROCK RIVER BASIN

### 05429000 Lake Monona at Madison, Wis.

LOCATION.--Lat 43°03'48", long 89°23'49", in SW¼ sec.23, T.7 N., R.9 E., Dane County, at end of concrete storm sewer in Brittingham Park, in Madison.

DRAINAGE AREA.--279 $mi^2$ (723 $km^2$), revised. Area of Lake Monona, 5.3 $mi^2$ (13.7 $km^2$).

PERIOD OF RECORD.--September 1915 to current year (fragmentary) in reports of the Geological Survey. For 1856 to March 1917 in reports of Wisconsin Railroad Commission, Volume 19.

GAGE.--Water-stage recorder. Datum of gage is 843.61 ft (257.132 m) above mean sea level, or 1.99 ft (0.606 m) below city of Madison datum. Prior to Nov. 15, 1971, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum gage height, 2.93 ft (0.893 m) May 8, 9; minimum, 1.31 ft (0.399 m) Dec. 6, 7. Period of record: Maximum gage height observed, 3.66 ft (1.116 m) July 28, 1929; minimum observed, -0.39 ft (-0.119 m) Jan. 20, 1965.

REMARKS.--Lake level regulated by concrete dam with four 12-foot stop-log sections and 12-foot lock at outlet of Lake Waubesa.

REVISION.--WSP 1338: Lake area.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.77 | .63 | 1.38 | 1.58 | 1.43 | 1.43 | 2.25 | 2.67 | 2.79 | 2.60 | 2.11 | 1.75 |
| 2 | 1.76 | 1.65 | 1.37 | 1.58 | 1.56 | 1.46 | 2.32 | 2.81 | 2.79 | 2.58 | 2.10 | 1.74 |
| 3 | 1.75 | 1.65 | 1.36 | 1.60 | 1.65 | 1.50 | 2.33 | 2.80 | 2.79 | 2.57 | 2.10 | 1.75 |
| 4 | 1.75 | 1.62 | 1.34 | 1.62 | 1.67 | 1.52 | 2.32 | 2.78 | 2.81 | 2.56 | 2.09 | 1.77 |
| 5 | 1.74 | 1.60 | 1.33 | 1.61 | 1.66 | 1.54 | 2.28 | 2.76 | 2.80 | 2.54 | 2.08 | 1.76 |
| 6 | 1.74 | 1.58 | 1.32 | 1.60 | 1.63 | 1.57 | 2.28 | 2.76 | 2.78 | 2.52 | 2.08 | 1.73 |
| 7 | 1.71 | 1.56 | 1.31 | 1.60 | 1.60 | 2.06 | 2.25 | 2.83 | 2.77 | 2.51 | 2.07 | 1.71 |
| 8 | 1.68 | 1.54 | 1.32 | 1.59 | 1.59 | 2.26 | 2.23 | 2.93 | 2.77 | 2.50 | 2.07 | 1.70 |
| 9 | 1.67 | 1.53 | 1.32 | 1.59 | 1.59 | 2.33 | 2.31 | 2.93 | 2.77 | 2.55 | 2.10 | 1.74 |
| 10 | 1.65 | 1.51 | 1.33 | 1.58 | 1.57 | 2.36 | 2.25 | 2.89 | 2.76 | 2.56 | 2.07 | 1.72 |
| 11 | 1.67 | 1.48 | 1.33 | 1.58 | 1.57 | 2.51 | 2.24 | 2.85 | 2.76 | 2.51 | 2.04 | 1.69 |
| 12 | 1.65 | 1.46 | 1.38 | 1.57 | 1.55 | 2.56 | 2.25 | 2.81 | 2.80 | 2.46 | 2.00 | 1.67 |
| 13 | 1.62 | 1.47 | 1.40 | 1.52 | 1.52 | 2.58 | 2.25 | 2.78 | 2.79 | 2.42 | 1.98 | 1.66 |
| 14 | 1.59 | 1.46 | 1.40 | 1.48 | 1.52 | 2.69 | 2.27 | 2.77 | 2.78 | 2.39 | 1.97 | 1.64 |
| 15 | 1.56 | 1.47 | 1.40 | 1.46 | | 2.68 | 2.31 | 2.73 | 2.79 | 2.36 | 1.94 | 1.62 |
| 16 | 1.53 | 1.50 | 1.39 | 1.45 | | 2.69 | 2.39 | 2.69 | 2.81 | 2.33 | 1.91 | 1.61 |
| 17 | 1.49 | 1.52 | 1.40 | 1.46 | | 2.63 | 2.41 | 2.67 | 2.83 | 2.30 | 1.89 | 1.66 |
| 18 | 1.47 | 1.51 | 1.41 | 1.48 | | 2.56 | 2.40 | 2.67 | 2.82 | 2.28 | 1.90 | 1.66 |
| 19 | 1.44 | 1.50 | 1.41 | 1.60 | | 2.54 | 2.41 | 2.72 | 2.81 | 2.27 | 1.91 | 1.64 |
| 20 | 1.44 | 1.48 | 1.42 | 1.62 | | 2.51 | 2.45 | 2.72 | 2.79 | 2.26 | 1.87 | 1.63 |
| 21 | 1.51 | 1.48 | 1.42 | 1.62 | | 2.47 | 2.67 | 2.71 | 2.77 | 2.23 | 1.83 | 1.64 |
| 22 | 1.61 | 1.46 | 1.43 | 1.62 | | 2.44 | 2.72 | 2.73 | 2.76 | 2.25 | 1.81 | 1.64 |
| 23 | 1.73 | 1.44 | 1.43 | 1.60 | | 2.42 | 2.71 | 2.73 | 2.76 | 2.25 | 1.87 | 1.64 |
| 24 | 1.74 | 1.44 | 1.42 | 1.58 | | 2.39 | 2.68 | 2.74 | 2.77 | 2.25 | 1.88 | 1.64 |
| 25 | 1.74 | 1.44 | 1.42 | 1.56 | | 2.37 | 2.64 | 2.80 | 2.76 | 2.24 | 1.85 | 1.72 |
| 26 | 1.73 | 1.43 | 1.42 | 1.53 | | 2.32 | 2.60 | 2.80 | 2.74 | 2.23 | 1.83 | 1.73 |
| 27 | 1.73 | 1.41 | 1.42 | 1.50 | | 2.29 | 2.55 | 2.85 | 2.71 | 2.20 | 1.82 | 1.76 |
| 28 | 1.71 | 1.39 | 1.41 | 1.49 | | 2.26 | 2.50 | 2.87 | 2.66 | 2.17 | 1.81 | 1.76 |
| 29 | 1.68 | 1.39 | 1.43 | 1.46 | ------ | 2.24 | 2.52 | 2.86 | 2.62 | 2.16 | 1.79 | 1.79 |
| 30 | 1.66 | 1.38 | 1.52 | 1.44 | ------ | 2.21 | 2.59 | 2.84 | 2.61 | 2.16 | 1.78 | 1.81 |
| 31 | 1.65 | ------ | 1.58 | 1.43 | ------ | 2.22 | ------ | 2.80 | ------ | 2.13 | 1.76 | ------ |
| MEAN | 1.65 | 1.50 | 1.39 | 1.55 | | 2.25 | 2.41 | 2.78 | 2.77 | 2.37 | 1.95 | 1.70 |
| MAX | 1.77 | 1.65 | 1.58 | 1.62 | | 2.69 | 2.72 | 2.93 | 2.83 | 2.60 | 2.11 | 1.81 |
| MIN | 1.44 | 1.38 | 1.31 | 1.43 | | 1.43 | 2.23 | 2.67 | 2.61 | 2.13 | 1.76 | 1.61 |

## 05429040 Manitou Way Storm Sewer at Madison, Wis.

**LOCATION.**--Lat 43°02'41", long 89°26'24", in NW¼ NW¼ sec.33, T.7 N., R.9 E., Dane County, at inlet to storm sewer on Manitou Way near intersection with Mandan Crescent, in Madison.

**DRAINAGE AREA.**--0.22 mi² (0.57 km²), revised.

**PERIOD OF RECORD.**--October 1970 to current year.

**GAGE.**--Water-stage recorder. Altitude of gage is 840 ft (256 m), from topographic map.

**EXTREMES.**--Current year: Maximum discharge, 58 ft³/s (1.64 m³/s) Mar. 6, gage height, 12.79 ft (3.90 m); no flow many days during year.

Period of record: Maximum discharge, 66 ft³/s (1.87 m³/s) Apr. 12, 1971, gage height, 12.97 ft (3.95 m); no flow many days in 1971-73.

**REMARKS.**--Records fair. Discharge at more frequent intervals is available in the district office. Data for Mallatt Storm Sewer, Knickerbocker Storm Sewer, Van Buren Storm Sewer, Marshland Creek, and Murphy Creek at Bold Street are available in the district office.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | .06 | .01 | 0 | 1.1 | .73 | .60 | .59 | 0 | 0 | 0 | 0 |
| 2 | 0 | .27 | 0 | 0 | 2.0 | .46 | .48 | .65 | .15 | 0 | 0 | .59 |
| 3 | 0 | .01 | 0 | .19 | .40 | .24 | 0 | 0 | .08 | .17 | 0 | .06 |
| 4 | 0 | 0 | 0 | .01 | .01 | .02 | .02 | 0 | .02 | 0 | 0 | .14 |
| 5 | 0 | 0 | 0 | 0 | 0 | .03 | 0 | .05 | 0 | 0 | 0 | 0 |
| 6 | .04 | .01 | 0 | 0 | 0 | 3.0 | 0 | .02 | 0 | 0 | .01 | 0 |
| 7 | 0 | .04 | 0 | 0 | 0 | .79 | 0 | .54 | 0 | 0 | 0 | 0 |
| 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | .41 | 0 | 0 | .22 | 0 |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | .21 | .20 | .18 |
| 10 | 0 | 0 | 0 | 0 | 0 | .38 | .14 | .08 | 0 | 0 | 0 | 0 |
| 11 | .20 | 0 | 0 | 0 | 0 | .33 | .11 | 0 | .11 | 0 | 0 | 0 |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | .23 | 0 | .15 | 0 | 0 | 0 |
| 13 | .06 | .12 | 0 | 0 | 0 | .13 | .14 | 0 | .01 | 0 | .02 | 0 |
| 14 | 0 | .01 | 0 | 0 | 0 | .55 | .19 | 0 | 0 | 0 | 0 | 0 |
| 15 | .01 | 0 | 0 | .01 | 0 | 0 | .09 | 0 | .03 | 0 | 0 | 0 |
| 16 | 0 | 0 | 0 | .09 | 0 | .07 | .46 | 0 | .18 | 0 | 0 | 0 |
| 17 | 0 | 0 | 0 | .46 | 0 | 0 | 0 | 0 | .03 | 0 | 0 | .51 |
| 18 | 0 | 0 | 0 | 1.0 | 0 | 0 | .06 | .08 | .01 | 0 | 0 | 0 |
| 19 | 0 | 0 | .66 | .19 | 0 | 0 | .02 | .40 | .01 | 0 | .03 | 0 |
| 20 | .15 | 0 | .04 | 0 | .07 | 0 | .72 | 0 | .02 | 0 | 0 | 0 |
| 21 | .18 | 0 | 0 | 0 | 0 | 0 | .72 | .04 | 0 | 0 | 0 | .12 |
| 22 | .76 | 0 | 0 | .22 | .01 | 0 | 0 | .03 | 0 | .31 | .05 | 0 |
| 23 | .38 | 0 | 0 | 0 | .02 | 0 | 0 | .01 | .04 | 0 | .59 | 0 |
| 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | .29 | 0 | .13 | 0 | .03 |
| 25 | 0 | .04 | 0 | .01 | 0 | 0 | 0 | .26 | 0 | 0 | 0 | .29 |
| 26 | 0 | .01 | 0 | .01 | 0 | 0 | 0 | .02 | 0 | 0 | 0 | .03 |
| 27 | 0 | 0 | 0 | .09 | .01 | 0 | 0 | .09 | .01 | 0 | 0 | .04 |
| 28 | 0 | 0 | 0 | .01 | 0 | 0 | .01 | .01 | 0 | 0 | 0 | .16 |
| 29 | 0 | 0 | .14 | 0 | ------ | 0 | .40 | 0 | 0 | 0 | 0 | .38 |
| 30 | 0 | 0 | .42 | 0 | ------ | 0 | 2.3 | 0 | 0 | 0 | 0 | .03 |
| 31 | 0 | ------ | 0 | 0 | ------ | .22 | ------ | 0 | ------ | 0 | .01 | ------ |
| TOTAL | 1.78 | .57 | 1.07 | 2.29 | 3.62 | 6.99 | 6.61 | 4.59 | .90 | .82 | 1.13 | 2.56 |
| MEAN | .057 | .019 | .035 | .074 | .13 | .23 | .22 | .15 | .030 | .027 | .037 | .085 |
| MAX | .76 | .27 | .42 | 1.0 | 2.0 | 3.0 | 2.3 | .89 | .18 | .31 | .59 | .59 |
| MIN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CFSM | .26 | .09 | .16 | .34 | .59 | 1.05 | 1.00 | .68 | .14 | .12 | .17 | .39 |
| IN. | .30 | .10 | .18 | .39 | .61 | 1.18 | 1.12 | .78 | .15 | .14 | .19 | .43 |

CAL YR 1972 TOTAL 30.49 MEAN .083 MAX 2.0 MIN 0 CFSM .38 IN 5.16
WTR YR 1973 TOTAL 32.93 MEAN .090 MAX 3.0 MIN 0 CFSM .41 IN 5.57

## 05429050 Nakoma Storm Sewer at Madison, Wis.

**LOCATION.**--Lat 43°02'55", long 89°26'16", in SE¼ SW¼ sec.28, T.7 N., R.9 E., Dane County, near the junction of Manitou Way and Nakoma Road, in the University of Wisconsin Arboretum, in Madison.

**DRAINAGE AREA.**--2.35 mi² (6.09 km²), revised.

**PERIOD OF RECORD.**--December 1971 to current year.

**GAGE.**--Water-stage recorder. Altitude of gage is 865 ft (264 m), from topographic map.

**EXTREMES.**--Current year: Maximum discharge, 81 ft³/s (2.29 m³/s) Sept. 2, gage height, 13.13 ft (4.00 m); no flow Dec. 5-18, Jan. 5-14, Feb. 14-20, July 29.

Period of record: Maximum discharge, 188 ft³/s (5.32 m³/s) Feb. 23, 1972, gage height, 14.6 ft (4.45 m); no flow many days 1972-73.

**REMARKS.**--Records fair. Discharge at more frequent intervals is available in the district office. Data for Mallatt Storm Sewer, Knickerbocker Storm Sewer, Van Buren Storm Sewer, Marshland Creek, Murphy Creek at Bold Street are available in the district office.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .20 | .27 | .03 | 3.3 | 9.0 | 7.0 | 3.5 | 5.4 | .14 | .05 | .05 | .17 |
| 2 | .17 | 1.7 | .04 | .53 | 19 | 7.3 | 4.8 | 14 | .14 | .07 | .07 | 5.0 |
| 3 | .17 | .56 | .02 | .12 | 6.0 | 5.3 | 2.2 | 6.2 | .70 | .67 | .05 | 3.7 |
| 4 | .15 | .32 | .01 | .06 | 1.9 | 1.9 | .82 | 3.4 | .06 | .06 | .05 | 2.5 |
| 5 | .14 | .15 | 0 | 0 | .40 | .81 | .52 | 3.7 | .24 | .03 | .05 | 1.2 |
| 6 | .29 | .15 | 0 | 0 | .29 | 8.7 | .22 | 1.6 | .06 | .02 | .04 | .74 |
| 7 | .12 | .50 | 0 | 0 | .17 | 26 | .19 | 4.8 | .08 | .08 | .04 | .48 |
| 8 | .09 | .12 | 0 | 0 | .44 | 5.1 | .09 | 7.9 | .04 | .10 | 1.0 | .36 |
| 9 | .06 | .08 | 0 | 0 | .32 | 2.6 | .36 | 3.4 | .03 | .09 | .01 | 1.2 |
| 10 | .07 | .08 | 0 | 0 | .14 | 2.5 | .76 | 2.2 | .03 | .06 | .08 | .32 |
| 11 | .78 | .07 | 0 | 0 | .10 | 4.8 | 1.9 | .56 | .62 | .06 | .05 | .25 |
| 12 | .08 | .06 | 0 | 0 | .04 | 3.0 | 2.7 | .13 | .74 | .14 | .04 | .19 |
| 13 | .23 | .10 | 0 | 0 | .02 | 1.6 | 3.0 | .15 | .13 | .06 | .17 | .16 |
| 14 | .04 | .07 | 0 | 0 | 0 | 6.1 | 4.4 | .46 | .06 | .08 | .08 | .16 |
| 15 | .25 | .05 | 0 | .55 | 0 | 2.6 | 4.1 | .10 | .15 | .11 | .08 | .14 |
| 16 | .09 | .04 | 0 | 2.6 | 0 | 1.4 | 6.8 | .07 | .71 | .06 | .07 | .14 |
| 17 | .03 | .04 | 0 | 3.5 | 0 | .98 | 3.5 | .03 | .38 | .11 | .04 | 2.5 |
| 18 | .01 | .05 | 0 | 7.0 | 0 | .33 | .82 | .58 | .20 | .10 | .04 | .44 |
| 19 | .01 | .06 | .36 | 8.2 | 0 | .38 | .55 | 3.2 | .17 | .04 | .16 | .25 |
| 20 | .59 | .05 | 2.3 | 2.0 | 0 | .32 | 5.3 | .78 | .17 | .05 | .04 | .22 |
| 21 | .08 | .05 | 1.7 | .41 | .08 | .22 | 7.6 | .52 | .06 | .04 | .03 | .74 |
| 22 | 6.4 | .05 | .52 | 2.9 | .11 | .25 | 5.2 | .58 | .05 | 1.4 | .17 | .20 |
| 23 | 7.3 | .05 | .07 | 1.4 | .22 | .27 | 4.8 | .26 | .34 | .25 | 2.8 | .17 |
| 24 | 2.4 | .04 | .04 | .25 | .04 | .16 | 2.6 | 1.0 | .03 | 1.1 | .62 | .36 |
| 25 | .78 | .04 | .03 | .17 | .03 | .27 | 1.1 | 3.2 | .04 | .22 | .52 | 2.1 |
| 26 | .24 | .09 | .03 | .14 | .05 | .17 | .98 | .71 | .13 | .22 | .48 | .88 |
| 27 | .12 | .05 | .03 | .56 | .13 | .16 | 1.1 | 5.7 | .09 | .05 | .32 | .74 |
| 28 | .09 | .06 | .03 | .42 | .13 | .13 | .94 | 3.7 | .03 | .03 | .22 | 2.5 |
| 29 | .08 | .04 | .03 | .15 | ------ | .05 | 2.9 | 2.1 | .03 | 0 | .22 | 3.8 |
| 30 | .09 | .03 | 1.8 | .12 | ------ | .04 | 5.3 | .47 | .04 | .04 | .19 | 1.8 |
| 31 | .08 | ------ | 8.9 | .11 | ------ | .57 | ------ | .18 | ------ | .04 | .28 | ------ |
| TOTAL | 21.90 | 5.02 | 15.94 | 34.49 | 38.65 | 90.81 | 79.15 | 77.08 | 6.29 | 6.14 | 8.86 | 33.49 |
| MEAN | .71 | .17 | .51 | 1.11 | 1.38 | 2.93 | 2.64 | 2.49 | .21 | .20 | .29 | 1.12 |
| MAX | 7.3 | 1.7 | 8.9 | 8.2 | 19 | 26 | 7.8 | 14 | .74 | 1.4 | 2.8 | 5.0 |
| MIN | .01 | .03 | 0 | 0 | 0 | .04 | .09 | .03 | .03 | 0 | .03 | .14 |
| CFSM | .30 | .07 | .22 | .47 | .59 | 1.25 | 1.12 | 1.06 | .09 | .09 | .12 | .48 |
| IN. | .35 | .08 | .25 | .55 | .61 | 1.44 | 1.25 | 1.22 | .10 | .10 | .14 | .53 |

CAL YR 1972 TOTAL 350.41 MEAN .96 MAX 25 MIN 0 CFSM .41 IN 5.55
WTR YR 1973 TOTAL 417.82 MEAN 1.14 MAX 26 MIN 0 CFSM .49 IN 6.61

## 05429120 Lake Wingra Outlet at Madison, Wis.

LOCATION.--Lat 43°03'28", long 89°24'22", in NE¼ NE¼ sec.27, T.7 N., R.9 E., Dane County, at outlet of Lake Wingra in Madison.

DRAINAGE AREA.--6.08 $mi^2$ (15.7 $km^2$), revised.

PERIOD OF RECORD.--December 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 846.8 ft (258.10 m) above mean sea level and 1.2 ft (0.37 m) above city of Madison datum.

EXTREMES.--Current year: Maximum discharge, 40 $ft^3/s$ (1.13 $m^3/s$) Mar. 7, gage height, 1.62 ft (0.49 m) observed reading; no flow July 15-25, July 28 to Aug. 9, Aug. 11-24.

Period of record: Maximum discharge, 40 $ft^3/s$ (1.13 $m^3/s$) Mar. 7, 1973, gage height, 1.62 ft (0.49 m) observed reading; no flow many days in 1971-73.

REMARKS.--Records fair. Water from Lake Wingra lagoons bypasses gage through a 30-inch storm sewer.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.1 | 2.8 | .49 | 4.0 | 5.3 | 2.8 | 5.3 | 14 | 7.5 | .15 | 0 | .14 |
| 2 | 4.1 | 5.1 | .49 | 5.1 | 13 | 6.4 | 9.4 | 17 | 6.6 | .16 | 0 | .10 |
| 3 | 3.6 | 4.9 | .65 | 5.1 | 19 | 8.0 | 10 | 17 | 6.4 | .28 | 0 | .65 |
| 4 | 3.2 | 4.4 | .48 | 6.0 | 16 | 8.2 | 9.4 | 16 | 6.2 | .44 | 0 | 2.9 |
| 5 | 2.8 | 4.3 | .45 | 4.9 | 13 | 8.0 | 8.2 | 13 | 5.8 | .20 | 0 | 2.9 |
| 6 | 2.4 | 3.5 | .52 | 3.8 | 11 | 8.0 | 6.6 | 12 | 5.1 | .20 | 0 | 2.0 |
| 7 | 2.2 | 4.4 | .36 | 3.5 | 6.7 | 33 | 5.8 | 13 | 4.4 | .18 | 0 | 1.4 |
| 8 | 1.6 | 4.1 | .56 | 3.1 | 7.1 | 27 | 5.1 | 18 | 4.1 | .18 | 0 | 1.3 |
| 9 | .83 | 3.2 | .65 | 2.6 | 6.4 | 24 | 6.4 | 18 | 3.1 | .16 | 0 | 2.0 |
| 10 | .60 | 2.4 | .77 | 2.4 | 5.3 | 21 | 8.0 | 16 | 2.9 | .48 | .01 | 2.1 |
| 11 | 1.2 | 2.6 | .65 | 2.2 | 4.6 | 25 | 7.8 | 14 | 2.4 | .25 | 0 | 1.6 |
| 12 | 1.2 | 1.9 | 1.7 | 1.9 | 4.1 | 22 | 8.4 | 11 | 3.2 | .15 | 0 | 1.2 |
| 13 | 1.3 | 1.1 | 2.1 | 1.9 | 3.4 | 16 | 8.9 | 8.9 | 2.9 | .12 | 0 | .95 |
| 14 | .89 | 1.4 | 1.7 | 1.8 | 3.9 | 17 | 9.4 | 7.8 | 2.6 | .01 | 0 | .77 |
| 15 | .56 | 1.5 | 1.6 | 1.7 | 3.5 | 19 | 11 | 7.1 | 2.4 | 0 | 0 | .52 |
| 16 | .89 | 1.4 | 1.2 | 1.6 | 2.9 | 16 | 14 | 5.8 | 2.4 | 0 | 0 | 1.2 |
| 17 | .32 | 1.3 | .77 | 2.9 | 2.6 | 12 | 13 | 4.4 | 3.1 | 0 | 0 | 2.0 |
| 18 | .14 | .95 | 1.2 | 5.1 | 2.6 | 8.4 | 12 | 4.1 | 2.9 | 0 | 0 | 2.0 |
| 19 | .06 | .89 | 1.2 | 9.6 | 2.6 | 9.9 | 11 | 5.7 | 2.7 | 0 | 0 | 2.3 |
| 20 | .12 | .83 | 1.2 | 10 | 2.5 | 8.4 | 11 | 5.6 | 2.2 | 0 | 0 | 1.6 |
| 21 | .95 | .71 | 1.2 | 8.9 | 2.4 | 7.5 | 17 | 5.5 | 1.6 | 0 | 0 | 1.6 |
| 22 | 3.6 | .65 | 1.2 | 8.9 | 2.3 | 7.3 | 19 | 5.7 | 1.1 | 0 | 0 | 2.2 |
| 23 | 5.1 | .71 | 1.1 | 8.4 | 2.2 | 6.8 | 14 | 5.7 | 1.2 | 0 | 0 | 1.7 |
| 24 | 10 | .71 | .45 | 7.1 | 2.1 | 5.1 | 13 | 5.5 | 1.2 | 0 | .16 | 1.9 |
| 25 | 9.1 | 1.0 | .45 | 6.4 | 1.9 | 4.4 | 11 | 8.0 | 1.0 | .03 | .25 | 2.0 |
| 26 | 7.8 | 1.6 | 1.0 | 5.7 | 1.8 | 4.3 | 9.6 | 7.5 | 1.0 | .06 | .44 | 4.3 |
| 27 | 6.4 | 1.5 | 1.1 | 5.3 | 1.6 | 3.6 | 8.4 | 7.5 | 1.0 | .01 | .65 | 3.9 |
| 28 | 5.3 | 1.0 | .83 | 5.1 | 1.7 | 3.6 | 7.1 | 12 | 1.0 | 0 | .52 | 3.6 |
| 29 | 4.1 | .65 | 1.2 | 4.4 | ------ | 3.2 | 7.5 | 11 | .36 | 0 | .32 | 3.5 |
| 30 | 3.3 | .77 | 4.1 | 4.1 | ------ | 3.1 | 10 | 9.9 | .15 | 0 | .20 | 3.2 |
| 31 | 2.9 | ------ | 6.9 | 3.8 | ------ | 2.7 | ------ | 8.9 | ------ | 0 | .14 | ------ |
| TOTAL | 91.46 | 62.07 | 40.27 | 149.3 | 154.0 | 351.5 | 299.3 | 315.8 | 88.51 | 3.06 | 2.69 | 57.53 |
| MEAN | 2.95 | 2.07 | 1.30 | 4.82 | 5.50 | 11.3 | 9.98 | 10.2 | 2.95 | .099 | .087 | 1.92 |
| MAX | 10 | 5.1 | 6.9 | 10 | 19 | 33 | 19 | 18 | 7.5 | .48 | .65 | 4.3 |
| MIN | .06 | .65 | .36 | 1.6 | 1.6 | 2.7 | 5.1 | 4.1 | .15 | 0 | 0 | .10 |

CAL YR 1972 TOTAL 1,213.21 MEAN 3.31 MAX 23 MIN 0
WTR YR 1973 TOTAL 1,815.49 MEAN 4.63 MAX 33 MIN 0

## 05429500 Yahara River near McFarland, Wis.

LOCATION.--Lat 43°00'32", long 89°18'18", in SW¼ sec.3, T.6 N., R.10 E., Dane County, on left bank just upstream from bridge on U.S. Highway 51, at dam at outlet of Lake Waubesa and 1.0 mi (1.6 km) southwest of McFarland.

DRAINAGE AREA.--327 mi² (847 km²), revised.

PERIOD OF RECORD.--September 1930 to current year.

GAGE.--Water-stage recorder. Datum of gage is 840.00 ft (256.032 m) above mean sea level (levels by Wisconsin Department of Natural Resources). Prior to Dec. 23, 1934, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--43 years, 148 ft³/s (4.191 m³/s), 6.22 in/yr (158 mm/yr).

EXTREMES.--Current year: Maximum discharge, 542 ft³/s (15.3 m³/s) Mar. 17, gage height, 5.37 ft (1.637 m); maximum gage height, 5.81 ft (1.771 m) May 29, backwater from aquatic vegetation; minimum daily discharge, 57 ft³/s (1.61 m³/s) Oct. 19.

Period of record: Maximum discharge, 867 ft³/s (24.6 m³/s) Apr. 10, 1959, gage height, 5.82 ft (1.774 m); maximum gage height, 6.33 ft (1.929 m) July 23, 24, 1950, backwater from aquatic vegetation; minimum discharge, 1.0 ft³/s (0.028 m³/s) Oct. 18, 1964.

REMARKS.--Records fair. Flow regulated by dams at outlets of Lake Mendota and Lake Waubesa. The Madison Metropolitan Sewerage District diverted an average of 33.72 mgd (1.48 m³/s) of effluent into the Badfish Creek basin during 1972. Prior to 1958 the effluent was discharged into the Yahara River above McFarland.

REVISIONS.--WSP 805, WRD Wis. 1971: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 184 | 168 | 133 | 205 | 188 | 255 | 417 | 472 | 332 | 232 | 205 | 147 |
| 2 | 179 | 179 | 129 | 198 | 228 | 270 | 441 | 509 | 318 | 228 | 205 | 145 |
| 3 | 177 | 181 | 131 | 196 | 255 | 288 | 448 | 517 | 318 | 232 | 203 | 145 |
| 4 | 170 | 184 | 127 | 196 | 242 | 295 | 446 | 506 | 305 | 235 | 198 | 156 |
| 5 | 170 | 177 | 125 | 193 | 228 | 302 | 441 | 490 | 300 | 232 | 198 | 168 |
| 6 | 168 | 177 | 122 | 180 | 218 | 310 | 433 | 477 | 295 | 228 | 198 | 154 |
| 7 | 165 | 184 | 122 | 179 | 203 | 495 | 428 | 485 | 282 | 220 | 198 | 145 |
| 8 | 156 | 181 | 120 | 174 | 203 | 482 | 422 | 514 | 275 | 220 | 205 | 140 |
| 9 | 142 | 177 | 120 | 170 | 193 | 482 | 430 | 523 | 265 | 230 | 208 | 145 |
| 10 | 120 | 177 | 120 | 165 | 191 | 462 | 435 | 514 | 255 | 242 | 212 | 145 |
| 11 | 116 | 172 | 118 | 163 | 180 | 504 | 425 | 501 | 245 | 240 | 208 | 142 |
| 12 | 112 | 170 | 125 | 156 | 180 | 517 | 425 | 490 | 242 | 230 | 205 | 136 |
| 13 | 110 | 168 | 129 | 161 | 180 | 512 | 425 | 477 | 228 | 225 | 200 | 133 |
| 14 | 101 | 168 | 131 | 165 | 191 | 531 | 420 | 472 | 232 | 222 | 198 | 131 |
| 15 | 95 | 170 | 136 | 170 | 193 | 537 | 422 | 487 | 235 | 220 | 193 | 127 |
| 16 | 68 | 188 | 140 | 172 | 205 | 539 | 438 | 454 | 240 | 212 | 191 | 125 |
| 17 | 76 | 170 | 140 | 179 | 205 | 542 | 441 | 435 | 250 | 208 | 186 | 136 |
| 18 | 67 | 170 | 142 | 193 | 205 | 528 | 435 | 428 | 248 | 205 | 179 | 138 |
| 19 | 57 | 170 | 147 | 225 | 210 | 514 | 433 | 422 | 252 | 203 | 177 | 131 |
| 20 | 58 | 172 | 152 | 232 | 215 | 501 | 441 | 409 | 250 | 205 | 177 | 127 |
| 21 | 65 | 172 | 161 | 230 | 222 | 487 | 490 | 396 | 248 | 205 | 170 | 125 |
| 22 | 67 | 170 | 163 | 238 | 228 | 480 | 514 | 396 | 250 | 210 | 163 | 125 |
| 23 | 125 | 163 | 165 | 240 | 230 | 469 | 509 | 388 | 255 | 212 | 168 | 125 |
| 24 | 149 | 158 | 165 | 240 | 232 | 459 | 495 | 381 | 252 | 212 | 172 | 120 |
| 25 | 161 | 156 | 168 | 242 | 235 | 451 | 482 | 343 | 250 | 210 | 170 | 133 |
| 26 | 156 | 154 | 168 | 235 | 238 | 446 | 469 | 376 | 248 | 215 | 168 | 133 |
| 27 | 154 | 152 | 165 | 228 | 240 | 435 | 459 | 381 | 248 | 215 | 165 | 138 |
| 28 | 168 | 147 | 168 | 222 | 242 | 428 | 443 | 386 | 248 | 210 | 165 | 140 |
| 29 | 168 | 142 | 172 | 220 | ------ | 425 | 438 | 381 | 240 | 205 | 161 | 149 |
| 30 | 168 | 138 | 184 | 203 | ------ | 417 | 451 | 363 | 235 | 205 | 156 | 152 |
| 31 | 170 | ------ | 148 | 191 | ------ | 409 | ------ | 345 | ------ | 205 | 152 | ------ |
| TOTAL | 4,042 | 5,055 | 4,486 | 6,161 | 5,980 | 13,792 | 13,396 | 13,756 | 7,841 | 6,773 | 5,754 | 4,156 |
| MEAN | 130 | 169 | 145 | 199 | 214 | 445 | 447 | 444 | 261 | 218 | 186 | 139 |
| MAX | 184 | 188 | 168 | 242 | 255 | 542 | 514 | 523 | 332 | 242 | 212 | 168 |
| MIN | 57 | 138 | 118 | 156 | 180 | 255 | 417 | 345 | 228 | 203 | 152 | 120 |
| CFSM | .40 | .52 | .44 | .61 | .65 | 1.36 | 1.37 | 1.36 | .80 | .67 | .57 | .43 |
| IN. | .46 | .58 | .51 | .70 | .68 | 1.57 | 1.52 | 1.56 | .89 | .77 | .65 | .47 |

CAL YR 1972 TOTAL 49,810 MEAN 136 MAX 320 MIN 28 CFSM .42 IN 5.67
WTR YR 1973 TOTAL 91,192 MEAN 250 MAX 542 MIN 57 CFSM .76 IN 10.37

## 05430500 Rock River at Afton, Wis.

**LOCATION.**--Lat 42°36'33", long 89°04'14", in NE¼ sec.28, T.2 N., R.12 E., Rock County, on right bank in Afton, 0.5 mi (0.5 km) downstream from highway bridge and 1.1 mi (1.8 km) upstream from Bass Creek.

**DRAINAGE AREA.**--3,331 mi² (8,627 km²).

**PERIOD OF RECORD.**--January 1914 to current year. Monthly discharge only for January 1914, published in WSP 1308.

**GAGE.**--Water-stage recorder. Datum of gage is 742.36 ft (226.271 m) above mean sea level. Prior to Aug. 21, 1932, a nonrecording gage, and Aug. 21, 1932, to Sept. 30, 1933, water-stage recorder, at same site at datum 1 ft (0.30 m) higher.

**AVERAGE DISCHARGE.**--59 years, 1,723 ft³/s (48.80 m³/s), 7.02 in/yr (178 mm/yr).

**EXTREMES.**--Current year: Maximum discharge, 9,680 ft³/s (274 m³/s) May 8, gage height, 10.81 ft (3.295 m); minimum, 599 ft³/s (16.96 m³/s) Sept. 21, gage height, 2.85 ft (0.869 m).
Period of record: Maximum discharge, 13,000 ft³/s (368 m³/s) Mar. 23, 24, 1929, gage height, 11.81 ft (3.600 m) present datum; maximum gage height observed, 13.05 ft (3.978 m) Feb. 5, 1916, present datum (backwater from ice); minimum discharge, 22 ft³/s (0.62 m³/s) Sept. 9, 1964; minimum daily, 42 ft³/s (1.189 m³/s) Aug. 25, 26, 1934; minimum gage height, 0.09 ft (0.027 m) Aug. 26, 1934.

**REMARKS.**--Records good except those for winter periods, which are fair. Diurnal fluctuation caused by power-plants above station. Records of water temperature for the current year are published in Part 2 of this report.

**REVISIONS (WATER YEARS).**--WSP 1238: 1916(M), 1919(M), 1933, 1937-38, 1943. WRD Wis. 1971: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 5-28, Jan. 5-16, Feb. 6-23.)

| | | | |
|---|---|---|---|
| 3.0 | 740 | 7.0 | 4,210 |
| 4.0 | 1,440 | 8.0 | 5,480 |
| 5.0 | 2,220 | 9.0 | 6,860 |
| 6.0 | 3,160 | 11.0 | 10,000 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5,100 | 4,460 | 2,410 | 1,900 | 3,400 | 2,300 | 6,570 | 8,820 | 6,370 | 2,630 | 1,040 | 887 |
| 2 | 5,190 | 4,450 | 2,220 | 2,240 | 5,060 | 2,620 | 6,390 | 9,290 | 6,430 | 2,520 | 1,030 | 866 |
| 3 | 5,160 | 4,370 | 2,210 | 3,160 | 5,160 | 2,660 | 6,360 | 9,300 | 6,430 | 2,520 | 1,040 | 908 |
| 4 | 5,170 | 4,300 | 1,860 | 3,410 | 4,100 | 2,700 | 6,260 | 9,110 | 6,300 | 2,610 | 1,010 | 971 |
| 5 | 5,100 | 4,340 | 1,800 | 3,100 | 4,400 | 2,900 | 6,080 | 9,050 | 6,100 | 2,490 | 970 | 957 |
| 6 | 5,170 | 4,330 | 1,700 | 3,200 | 4,300 | 3,200 | 5,900 | 9,110 | 6,090 | 2,330 | 957 | 915 |
| 7 | 5,040 | 4,340 | 1,700 | 3,200 | 4,200 | 4,920 | 6,800 | 9,190 | 5,860 | 2,220 | 929 | 936 |
| 8 | 4,880 | 4,300 | 1,500 | 3,100 | 4,000 | 5,780 | 6,040 | 9,560 | 5,640 | 2,160 | 985 | 950 |
| 9 | 4,880 | 4,310 | 1,500 | 2,900 | 4,000 | 5,510 | 6,210 | 9,490 | 5,510 | 2,130 | 1,040 | 970 |
| 10 | 4,640 | 4,310 | 1,400 | 2,600 | 3,900 | 5,870 | 6,050 | 9,100 | 5,360 | 2,130 | 1,020 | 971 |
| 11 | 4,560 | 4,100 | 1,400 | 2,400 | 3,700 | 6,360 | 5,570 | 8,920 | 4,950 | 2,050 | 1,010 | 999 |
| 12 | 4,510 | 4,110 | 1,300 | 2,200 | 3,600 | 6,770 | 5,580 | 8,870 | 5,020 | 1,880 | 1,010 | 1,100 |
| 13 | 4,370 | 4,270 | 1,300 | 2,100 | 3,500 | 7,080 | 5,560 | 8,740 | 4,880 | 1,670 | 971 | 1,100 |
| 14 | 4,160 | 4,430 | 1,200 | 2,100 | 3,300 | 7,500 | 5,600 | 8,540 | 4,570 | 1,240 | 1,030 | 985 |
| 15 | 4,040 | 4,000 | 1,200 | 2,000 | 3,200 | 7,610 | 5,680 | 8,260 | 4,400 | 1,060 | 1,060 | 929 |
| 16 | 3,870 | 3,850 | 1,200 | 2,100 | 3,100 | 7,900 | 5,730 | 7,940 | 4,040 | 1,120 | 1,030 | 901 |
| 17 | 3,820 | 3,760 | 1,200 | 2,100 | 3,100 | 8,210 | 5,940 | 7,820 | 4,440 | 1,130 | 1,010 | 999 |
| 18 | 3,790 | 3,720 | 1,100 | 2,240 | 3,000 | 8,210 | 6,050 | 7,620 | 4,200 | 1,180 | 1,010 | 1,120 |
| 19 | 3,670 | 3,670 | 1,100 | 2,560 | 2,900 | 8,220 | 6,140 | 7,520 | 4,470 | 1,170 | 1,030 | 1,040 |
| 20 | 3,500 | 3,500 | 1,100 | 2,660 | 2,800 | 8,200 | 6,230 | 7,340 | 4,270 | 1,250 | 1,080 | 824 |
| 21 | 3,430 | 3,400 | 1,100 | 2,680 | 2,800 | 8,210 | 7,200 | 7,020 | 4,060 | 1,270 | 1,100 | 754 |
| 22 | 3,630 | 3,400 | 1,100 | 2,890 | 2,700 | 8,120 | 7,660 | 6,820 | 3,940 | 1,260 | 1,130 | 950 |
| 23 | 4,060 | 3,210 | 1,100 | 2,990 | 2,700 | 8,000 | 7,640 | 6,600 | 3,850 | 1,220 | 1,100 | 957 |
| 24 | 4,100 | 3,060 | 1,000 | 3,060 | 2,620 | 7,860 | 7,860 | 6,330 | 3,700 | 1,170 | 1,130 | 1,030 |
| 25 | 3,920 | 3,040 | 1,000 | 3,170 | 2,690 | 7,820 | 8,040 | 6,320 | 3,510 | 1,120 | 1,140 | 1,270 |
| 26 | 3,950 | 3,010 | 1,000 | 3,260 | 2,520 | 7,600 | 8,140 | 6,180 | 3,390 | 1,120 | 1,030 | 1,360 |
| 27 | 4,130 | 2,840 | 1,000 | 3,350 | 2,420 | 7,300 | 8,040 | 6,370 | 3,180 | 1,020 | 985 | 1,370 |
| 28 | 4,330 | 2,720 | 1,000 | 3,440 | 2,320 | 7,010 | 7,940 | 6,670 | 2,990 | 922 | 971 | 1,520 |
| 29 | 4,390 | 2,660 | 1,200 | 3,340 | ------ | 6,830 | 7,900 | 6,540 | 2,810 | 985 | 992 | 1,970 |
| 30 | 4,610 | 2,470 | 1,800 | 3,300 | ------ | 6,570 | 8,280 | 6,420 | 2,700 | 971 | 964 | 1,950 |
| 31 | 4,460 | ------ | 2,400 | 3,430 | ------ | 6,530 | ------ | 6,370 | ------ | 1,060 | 894 | ------ |
| TOTAL | 135,430 | 113,060 | 44,100 | 86,320 | 95,050 | 196,510 | 198,720 | 245,230 | 139,540 | 49,600 | 31,786 | 32,467 |
| MEAN | 4,369 | 3,769 | 1,423 | 2,785 | 3,416 | 6,339 | 6,624 | 7,911 | 4,651 | 1,600 | 1,023 | 1,082 |
| MAX | 5,190 | 4,460 | 2,410 | 3,440 | 5,160 | 8,220 | 8,280 | 9,560 | 6,430 | 2,630 | 1,140 | 1,970 |
| MIN | 3,430 | 2,470 | 1,000 | 1,900 | 2,320 | 2,300 | 5,560 | 6,180 | 2,700 | 922 | 894 | 754 |
| CFSM | 1.31 | 1.13 | .43 | .84 | 1.03 | 1.90 | 1.99 | 2.38 | 1.40 | .48 | .31 | .32 |
| IN. | 1.51 | 1.26 | .49 | .96 | 1.07 | 2.19 | 2.22 | 2.74 | 1.56 | .55 | .35 | .36 |

CAL YR 1972 TOTAL 829,016 MEAN 2,265 MAX 5,190 MIN 300 CFSM .68 IN 9.26
WTR YR 1973 TOTAL 1,360,341 MEAN 3,749 MAX 9,560 MIN 754 CFSM 1.13 IN 15.28

## 05431500 Turtle Creek near Clinton, Wis.

LOCATION.--Lat 42°35'47", long 88°51'50", in SW¼ sec.29, T.2 N., R.14 E., Rock County, on left bank 15 ft (5 m) downstream from bridge on State Highway 140, 2.7 mi (4.3 km) north of Clinton, 11 mi (18 km) northeast of Beloit, and 16 mi (26 km) upstream from mouth.

DRAINAGE AREA.--202 mi² (523 km²).

PERIOD OF RECORD.--September 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 817.00 ft (249.022 m) above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--34 years, 110 ft³/s (3.115 m³/s), 8.05 in/yr (204 mm/yr).

EXTREMES.--Current year: Maximum discharge, 16,500 ft³/s (467 m³/s) Apr. 21, gage height, 12.85 ft (3.917 m) from rating curve extended above 6,500 ft³/s (184 m³/s) on basis of slope-area measurement of peak flow; minimum, 93 ft³/s (2.63 m³/s) Feb. 26, gage height, 2.76 ft (0.841 m).
Period of record: Maximum discharge, 16,500 ft³/s (467 m³/s) Apr. 21, 1973, gage height, 12.85 ft (3.917 m) from rating curve extended above 6,500 ft³/s (184 m³/s) on basis of slope-area measurement of peak flow; minimum discharge, 8 ft³/s (0.23 m³/s) Dec. 29, 1956, gage height, 2.04 ft (0.622 m), result of freezeup.

REMARKS.--Records good except those for winter periods, which are fair. Some seasonal regulation caused by dams used to maintain levels of Turtle and Delavan Lakes.

REVISIONS (WATER YEARS).--WSP 955: 1940. WSP 1308: 1950(M). WRD Wis. 1971: Drainage area.

Rating tables (gage height, in feet, and discharge, in cubic feet per second.)
(Stage-discharge relation affected by ice Dec. 3-25, Jan. 4-17, 29, 30, Feb. 8-13, 15-20.)

| Oct. 1 to Apr. 21 | | | | Apr. 21 to Sept. 30 | | | |
|---|---|---|---|---|---|---|---|
| 2.8 | 100 | 5.0 | 918 | 3.3 | 93 | 8.0 | 2,550 |
| 3.0 | 142 | 6.0 | 1,460 | 4.0 | 241 | 9.0 | 4,000 |
| 3.5 | 282 | 7.0 | 2,280 | 5.0 | 560 | 11.0 | 8,640 |
| 4.0 | 469 | 9.0 | 4,780 | 6.0 | 1,000 | 13.0 | 12,340 |
| | | | | 7.0 | 1,600 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 229 | 272 | 147 | 441 | 154 | 196 | 291 | 1,030 | 240 | 148 | 122 | 120 |
| 2 | 290 | 394 | 144 | 382 | 839 | 296 | 359 | 1,030 | 200 | 148 | 119 | 122 |
| 3 | 195 | 363 | 130 | 382 | 553 | 370 | 335 | 1,690 | 196 | 155 | 115 | 123 |
| 4 | 200 | 316 | 130 | 450 | 273 | 292 | 321 | 818 | 210 | 234 | 113 | 225 |
| 5 | 214 | 289 | 120 | 500 | 233 | 290 | 311 | 604 | 240 | 223 | 112 | 195 |
| 6 | 217 | 269 | 120 | 540 | 204 | 700 | 270 | 560 | 270 | 174 | 110 | 156 |
| 7 | 214 | 272 | 120 | 500 | 188 | 1,700 | 261 | 652 | 240 | 161 | 107 | 145 |
| 8 | 203 | 269 | 110 | 420 | 188 | 587 | 260 | 800 | 217 | 151 | 105 | 124 |
| 9 | 192 | 256 | 110 | 390 | 188 | 410 | 250 | 624 | 182 | 153 | 125 | 117 |
| 10 | 189 | 250 | 110 | 370 | 180 | 394 | 272 | 487 | 175 | 179 | 143 | 114 |
| 11 | 269 | 241 | 110 | 350 | 170 | 432 | 261 | 461 | 166 | 151 | 121 | 100 |
| 12 | 254 | 235 | 110 | 340 | 170 | 410 | 315 | 433 | 167 | 136 | 110 | 104 |
| 13 | 223 | 232 | 110 | 340 | 160 | 394 | 455 | 384 | 165 | 130 | 137 | 104 |
| 14 | 206 | 235 | 110 | 330 | 151 | 691 | 540 | 311 | 160 | 139 | 142 | 103 |
| 15 | 195 | 229 | 110 | 330 | 150 | 530 | 537 | 278 | 161 | 136 | 171 | 100 |
| 16 | 195 | 229 | 110 | 330 | 140 | 437 | 560 | 234 | 290 | 133 | 174 | 98 |
| 17 | 187 | 226 | 120 | 350 | 140 | 424 | 530 | 224 | 700 | 132 | 121 | 140 |
| 18 | 171 | 220 | 120 | 390 | 140 | 381 | 437 | 221 | 510 | 130 | 104 | 149 |
| 19 | 160 | 214 | 130 | 296 | 140 | 349 | 390 | 255 | 460 | 126 | 104 | 123 |
| 20 | 171 | 212 | 130 | 283 | 140 | 362 | 380 | 239 | 410 | 120 | 101 | 112 |
| 21 | 220 | 209 | 130 | 171 | 136 | 203 | 6,480 | 227 | 340 | 134 | 97 | 110 |
| 22 | 394 | 206 | 130 | 214 | 137 | 176 | 2,080 | 239 | 240 | 157 | 97 | 175 |
| 23 | 639 | 200 | 130 | 190 | 135 | 167 | 1,160 | 254 | 205 | 147 | 103 | 154 |
| 24 | 449 | 195 | 130 | 152 | 131 | 162 | 996 | 251 | 217 | 172 | 107 | 143 |
| 25 | 382 | 192 | 129 | 142 | 112 | 158 | 846 | 305 | 188 | 146 | 105 | 275 |
| 26 | 327 | 176 | 120 | 140 | 102 | 151 | 754 | 277 | 173 | 142 | 105 | 230 |
| 27 | 296 | 169 | 135 | 156 | 101 | 142 | 696 | 342 | 165 | 153 | 107 | 179 |
| 28 | 272 | 154 | 120 | 214 | 117 | 141 | 637 | 525 | 158 | 129 | 97 | 290 |
| 29 | 299 | 144 | 127 | 200 | ------ | 144 | 799 | 447 | 156 | 124 | 94 | 325 |
| 30 | 272 | 144 | 1,590 | 160 | ------ | 143 | 1,060 | 444 | 151 | 122 | 94 | 470 |
| 31 | 260 | ------ | 996 | 133 | ------ | 148 | ------ | 348 | ------ | 129 | 100 | ------ |
| TOTAL | 7,096 | 7,012 | 6,129 | 9,522 | 5,456 | 11,316 | 22,725 | 15,054 | 7,352 | 4,622 | 3,578 | 4,957 |
| MEAN | 255 | 234 | 198 | 307 | 195 | 365 | 758 | 486 | 245 | 149 | 115 | 165 |
| MAX | 639 | 394 | 1,590 | 540 | 839 | 1,700 | 6,480 | 1,690 | 700 | 234 | 174 | 470 |
| MIN | 160 | 144 | 110 | 133 | 101 | 141 | 250 | 221 | 151 | 122 | 94 | 98 |
| CFSM | 1.27 | 1.16 | 1.06 | 1.65 | 1.05 | 1.96 | 4.08 | 2.61 | 1.32 | .80 | .62 | .89 |
| IN. | 1.58 | 1.40 | 1.23 | 1.90 | 1.09 | 2.26 | 4.55 | 3.01 | 1.47 | .92 | .72 | .99 |

CAL YR 1972 TOTAL 75,444 MEAN 206 MAX 1,740 MIN 42 CFSM 1.11 IN 15.09
WTR YR 1973 TOTAL 105,619 MEAN 289 MAX 6,480 MIN 94 CFSM 1.55 IN 21.12

PEAK DISCHARGE (BASE, 1,200 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 12-30 | 1800 | 7.02 | 2,300 | 4-21 | 0800 | 12.85 | 16,500 |
| 2- 2 | 1800 | 5.55 | 1,200 | 5- 2 | 0800 | 7.84 | 2,320 |
| 3- 7 | 1230 | 6.52 | 1,850 | | | | |

## 05432500 Pecatonica River at Darlington, Wis.

LOCATION.--Lat 42°40'40", long 90°07'07", in NE¼ sec.3, T.2 N., R.3 E., Lafayette County, on right bank in Darlington, 0.3 mi (0.5 km) downstream from Vinegar Branch, and 3.6 mi (5.8 km) upstream from Otter Creek.

DRAINAGE AREA.--274 $mi^2$ (710 $km^2$).

PERIOD OF RECORD.--September 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 802.42 ft (244.578 m) above mean sea level.

AVERAGE DISCHARGE.--34 years, 181 $ft^3/s$ (5.13 $m^3/s$), 8.97 in/yr (228 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,440 $ft^3/s$ (69.1 $m^3/s$) Dec. 31, gage height, 12.83 ft (3.911 m); minimum, 100 $ft^3/s$ (2.83 $m^3/s$) Apr. 10, gage height, 2.08 ft (0.634 m).
Period of record: Maximum discharge, 22,000 $ft^3/s$ (623 $m^3/s$), July 16, 1950, gage height, 20.71 ft (6.312 m), from rating curve extended above 11,000 $ft^3/s$ (312 $m^3/s$) on basis of slope-area determination of peak flow; minimum, 17 $ft^3/s$ (0.48 $m^3/s$) Nov. 29, 1966, gage height, 2.09 ft (0.637 m), result of freezeup; minimum gage height, 1.07 ft (0.326 m), Dec. 6, 1968, result of freezeup.
Flood of Feb. 21, 1937, reached a stage of 17.6 ft (5.36 m), from floodmarks.

REMARKS.--Records good except those for winter periods, which are fair.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Nov. 30 to Dec. 29, Jan. 4-16, 29, 30, Feb. 8-21.)

| | | | |
|---|---|---|---|
| 2.0 | 92 | 7.0 | 720 |
| 2.5 | 144 | 9.0 | 1,070 |
| 3.0 | 200 | 11.0 | 1,620 |
| 5.0 | 447 | 13.0 | 2,550 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 210 | 224 | 150 | 1,800 | 773 | 301 | 330 | 772 | 419 | 283 | 190 | 155 |
| 2 | 196 | 267 | 140 | 583 | 1,720 | 587 | 384 | 1,460 | 403 | 277 | 185 | 153 |
| 3 | 185 | 291 | 140 | 436 | 822 | 539 | 342 | 1,600 | 434 | 346 | 180 | 193 |
| 4 | 179 | 246 | 130 | 380 | 284 | 337 | 316 | 1,000 | 438 | 584 | 180 | 179 |
| 5 | 173 | 226 | 130 | 330 | 237 | 244 | 313 | 741 | 411 | 349 | 187 | 163 |
| 6 | 176 | 219 | 130 | 300 | 218 | 260 | 286 | 699 | 380 | 292 | 178 | 150 |
| 7 | 179 | 226 | 130 | 250 | 201 | 1,580 | 278 | 822 | 360 | 277 | 175 | 144 |
| 8 | 167 | 230 | 130 | 230 | 130 | 1,440 | 274 | 1,090 | 349 | 262 | 176 | 144 |
| 9 | 157 | 212 | 130 | 210 | 150 | 433 | 248 | 851 | 333 | 254 | 194 | 167 |
| 10 | 150 | 207 | 130 | 190 | 160 | 362 | 184 | 716 | 321 | 273 | 190 | 180 |
| 11 | 166 | 205 | 130 | 180 | 160 | 774 | 320 | 642 | 313 | 260 | 173 | 158 |
| 12 | 166 | 198 | 130 | 180 | 160 | 675 | 390 | 630 | 361 | 241 | 167 | 150 |
| 13 | 153 | 194 | 130 | 180 | 160 | 457 | 443 | 583 | 384 | 236 | 163 | 145 |
| 14 | 150 | 206 | 130 | 180 | 150 | 836 | 500 | 553 | 318 | 230 | 174 | 148 |
| 15 | 143 | 198 | 130 | 190 | 140 | 783 | 635 | 531 | 309 | 228 | 173 | 144 |
| 16 | 144 | 196 | 130 | 260 | 130 | 544 | 935 | 507 | 371 | 223 | 166 | 144 |
| 17 | 143 | 196 | 130 | 956 | 120 | 521 | 970 | 486 | 1,190 | 218 | 162 | 183 |
| 18 | 136 | 193 | 140 | 1,470 | 120 | 439 | 660 | 470 | 910 | 213 | 158 | 201 |
| 19 | 133 | 185 | 160 | 1,910 | 130 | 396 | 581 | 488 | 509 | 211 | 161 | 163 |
| 20 | 132 | 181 | 170 | 1,320 | 130 | 373 | 609 | 467 | 419 | 214 | 163 | 153 |
| 21 | 189 | 180 | 170 | 378 | 130 | 346 | 1,190 | 443 | 376 | 223 | 154 | 175 |
| 22 | 262 | 179 | 160 | 382 | 140 | 327 | 1,160 | 454 | 351 | 230 | 154 | 193 |
| 23 | 577 | 175 | 150 | 430 | 202 | 316 | 925 | 447 | 350 | 264 | 224 | 158 |
| 24 | 481 | 173 | 150 | 278 | 334 | 306 | 698 | 429 | 362 | 230 | 254 | 148 |
| 25 | 342 | 181 | 140 | 312 | 229 | 301 | 611 | 467 | 328 | 224 | 187 | 190 |
| 26 | 303 | 199 | 140 | 376 | 143 | 292 | 562 | 438 | 322 | 216 | 176 | 194 |
| 27 | 277 | 189 | 130 | 346 | 175 | 274 | 519 | 596 | 322 | 218 | 166 | 183 |
| 28 | 256 | 175 | 140 | 607 | 175 | 266 | 487 | 936 | 310 | 208 | 158 | 187 |
| 29 | 241 | 157 | 150 | 230 | ------ | 264 | 536 | 591 | 297 | 198 | 154 | 216 |
| 30 | 226 | 150 | 1,420 | 210 | ------ | 256 | 671 | 491 | 290 | 198 | 150 | 214 |
| 31 | 222 | ------ | 2,350 | 232 | ------ | 255 | ------ | 446 | ------ | 194 | 150 | ------ |
| TOTAL | 6,614 | 6,058 | 7,820 | 15,316 | 7,623 | 15,084 | 16,357 | 20,846 | 12,248 | 7,874 | 5,422 | 5,075 |
| MEAN | 213 | 202 | 252 | 494 | 272 | 487 | 545 | 672 | 408 | 254 | 175 | 169 |
| MAX | 577 | 291 | 2,350 | 1,910 | 1,720 | 1,580 | 1,190 | 1,600 | 1,190 | 584 | 254 | 216 |
| MIN | 132 | 150 | 130 | 180 | 120 | 244 | 184 | 429 | 290 | 194 | 150 | 144 |
| CFSM | .78 | .74 | .92 | 1.80 | .99 | 1.78 | 1.99 | 2.45 | 1.49 | .93 | .64 | .62 |
| IN. | .90 | .82 | 1.06 | 2.08 | 1.03 | 2.05 | 2.22 | 2.83 | 1.66 | 1.07 | .74 | .69 |

CAL YR 1972 TOTAL 67,300 MEAN 184 MAX 2,350 MIN 50 CFSM .67 IN 9.14
WTR YR 1973 TOTAL 126,337 MEAN 346 MAX 2,350 MIN 120 CFSM 1.26 IN 17.15

PEAK DISCHARGE (BASE, 1,500 $FT^3/S$, REVISED)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 12-31 | 1900 | 12.83 | 2,440 | 3- 8 | 0100 | 12.26 | 2,110 |
| 1-19 | 1900 | 11.88 | 1,950 | 5- 3 | 0600 | 11.24 | 1,700 |
| 2- 2 | 1300 | 11.86 | 1,910 | 6-17 | 2300 | 10.60 | 1,500 |

## ROCK RIVER BASIN

### 05433000 East Branch Pecatonica River near Blanchardville, Wis.

LOCATION.--Lat 42°47'10", long 89°51'40", in SE¼ sec.26, T.4 N., R.5 E., Lafayette County, on left bank at downstream side of bridge on State Highway 78, 1.8 mi (2.9 km) south of Blanchardville and 4.5 mi (7.2 km) upstream from Sawmill Creek.

DRAINAGE AREA.--221 mi² (572 km²).

PERIOD OF RECORD.--September 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 796.8 ft (242.86 m) above mean sea level, unadjusted. Prior to Dec. 20, 1939, nonrecording gage at bridge 50 ft (15 m) upstream at same datum. Auxiliary nonrecording gage 2.7 mi (4.3 km) upstream at same datum read every six hours or more often when stages exceed 10 ft (3 m).

AVERAGE DISCHARGE.--34 years, 138 ft³/s (3.91 m³/s), 8.48 in/yr (2.58 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,380 ft³/s (67.4 m³/s) Feb. 2, gage height, 12.50 ft (3.81 m); minimum daily, 94 ft³/s (2.66 m³/s) Dec. 17.

Period of record: Maximum discharge, 11,700 ft³/s (331 m³/s) Feb. 28, 1948, gage height, 15.74 ft (4.80 m); minimum, 18 ft³/s (0.51 m³/s) Nov. 29, 1966.

REMARKS.--Records good except those for winter periods, which are fair.

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 1-31, Jan. 3-18, Jan. 30, Feb. 7-23.)

Oct. 1 to Dec. 30

| | | | |
|---|---|---|---|
| 3.3 | 94 | 7.0 | 420 |
| 4.0 | 150 | 9.0 | 632 |
| 5.0 | 230 | 11.0 | 990 |

Dec. 31 to Sept. 30

| | | | |
|---|---|---|---|
| 3.4 | 98 | 8.0 | 584 |
| 4.0 | 144 | 10.0 | 932 |
| 6.0 | 349 | 12.0 | 1,860 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 138 | 139 | 120 | 610 | 498 | 207 | 251 | 687 | 332 | 208 | 153 | 139 |
| 2 | 131 | 177 | 110 | 415 | 1,710 | 670 | 346 | 1,440 | 320 | 202 | 151 | 132 |
| 3 | 125 | 187 | 110 | 340 | 585 | 646 | 305 | 1,290 | 330 | 205 | 148 | 154 |
| 4 | 126 | 157 | 110 | 240 | 206 | 304 | 261 | 816 | 323 | 272 | 146 | 152 |
| 5 | 123 | 148 | 100 | 180 | 179 | 183 | 256 | 642 | 314 | 220 | 149 | 150 |
| 6 | 122 | 145 | 100 | 160 | 162 | 204 | 228 | 593 | 300 | 200 | 145 | 134 |
| 7 | 124 | 152 | 100 | 150 | 140 | 1,440 | 221 | 714 | 285 | 193 | 144 | 130 |
| 8 | 120 | 151 | 100 | 140 | 110 | 721 | 216 | 1,180 | 279 | 188 | 146 | 130 |
| 9 | 115 | 144 | 98 | 140 | 120 | 314 | 200 | 828 | 268 | 182 | 161 | 141 |
| 10 | 111 | 141 | 98 | 140 | 120 | 262 | 183 | 664 | 259 | 193 | 150 | 140 |
| 11 | 120 | 140 | 96 | 140 | 120 | 590 | 294 | 582 | 252 | 182 | 142 | 133 |
| 12 | 120 | 136 | 96 | 140 | 110 | 451 | 287 | 547 | 265 | 177 | 139 | 129 |
| 13 | 113 | 135 | 96 | 140 | 110 | 331 | 340 | 498 | 270 | 174 | 137 | 128 |
| 14 | 112 | 140 | 96 | 140 | 110 | 633 | 432 | 464 | 244 | 172 | 162 | 129 |
| 15 | 108 | 137 | 96 | 150 | 100 | 542 | 585 | 440 | 242 | 170 | 146 | 126 |
| 16 | 109 | 135 | 96 | 170 | 100 | 505 | 663 | 420 | 338 | 168 | 140 | 126 |
| 17 | 109 | 136 | 94 | 350 | 100 | 397 | 661 | 401 | 638 | 167 | 137 | 146 |
| 18 | 106 | 138 | 96 | 780 | 100 | 326 | 496 | 398 | 337 | 164 | 134 | 154 |
| 19 | 104 | 140 | 100 | 1,250 | 100 | 295 | 446 | 435 | 303 | 163 | 134 | 134 |
| 20 | 104 | 136 | 110 | 423 | 100 | 278 | 428 | 391 | 269 | 164 | 135 | 133 |
| 21 | 128 | 131 | 110 | 199 | 110 | 262 | 754 | 366 | 251 | 167 | 130 | 130 |
| 22 | 173 | 131 | 110 | 197 | 110 | 244 | 735 | 370 | 248 | 178 | 133 | 139 |
| 23 | 369 | 129 | 100 | 154 | 130 | 237 | 574 | 363 | 248 | 184 | 164 | 130 |
| 24 | 277 | 128 | 100 | 162 | 198 | 228 | 493 | 347 | 259 | 175 | 179 | 126 |
| 25 | 190 | 129 | 100 | 169 | 136 | 225 | 444 | 348 | 234 | 168 | 146 | 171 |
| 26 | 173 | 135 | 100 | 207 | 119 | 219 | 411 | 357 | 230 | 163 | 141 | 163 |
| 27 | 162 | 139 | 100 | 179 | 126 | 207 | 381 | 465 | 231 | 165 | 136 | 145 |
| 28 | 154 | 138 | 110 | 319 | 148 | 201 | 360 | 862 | 223 | 158 | 133 | 154 |
| 29 | 148 | 132 | 140 | 144 | ------ | 199 | 380 | 483 | 217 | 156 | 130 | 215 |
| 30 | 142 | 124 | 360 | 130 | ------ | 194 | 555 | 383 | 212 | 156 | 129 | 192 |
| 31 | 139 | ------ | 920 | 146 | ------ | 190 | ------ | 351 | ------ | 154 | 130 | ------ |
| TOTAL | 4,395 | 4,230 | 4,272 | 8,204 | 5,877 | 11,705 | 12,106 | 18,117 | 8,521 | 5,588 | 4,450 | 4,305 |
| MEAN | 142 | 141 | 138 | 265 | 210 | 378 | 404 | 584 | 284 | 180 | 144 | 144 |
| MAX | 369 | 187 | 920 | 1,250 | 1,710 | 1,440 | 754 | 1,440 | 638 | 272 | 179 | 215 |
| MIN | 104 | 124 | 94 | 130 | 100 | 183 | 183 | 347 | 212 | 154 | 129 | 126 |
| CFSM | .64 | .64 | .62 | 1.20 | .95 | 1.71 | 1.83 | 2.64 | 1.29 | .81 | .65 | .65 |
| IN. | .74 | .71 | .72 | 1.38 | .99 | 1.97 | 2.04 | 3.05 | 1.43 | .94 | .75 | .72 |

CAL YR 1972 TOTAL 47,028 MEAN 128 MAX 1,230 MIN 66 CFSM .58 IN 7.92
WTR YR 1973 TOTAL 91,770 MEAN 251 MAX 1,710 MIN 94 CFSM 1.14 IN 15.45

PEAK DISCHARGE (BASE, 1,300 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 1-19 | 1400 | 11.84 | 1,720 | 5- 2 | 1900 | 12.05 | 1,900 |
| 2- 2 | 0700 | 12.50 | 2,380 | 5- 8 | 0500 | 11.18 | 1,320 |
| 3- 7 | 2000 | 12.13 | 1,980 | | | | |

## 05434500 Pecatonica River at Martintown, Wis.

LOCATION.--Lat 42°30'34", long 89°47'58", in SE¼ sec.32, T.1 N., R.6 E., Green County, on right bank about 400 ft (120 m) downstream from highway bridge in Martintown, 0.5 mi (0.5 km) upstream from Wisconsin-Illinois State line and 8.8 mi (14.1 km) downstream from Skinner Creek.

DRAINAGE AREA.--1,034 mi² (2,678 km²).

RECORDS AVAILABLE.--October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 757.9 ft (231.01 m) above mean sea level. Prior to Jan. 6, 1940, nonrecording gage at same site and datum. Auxiliary nonrecording gage 1.2 mi (1.9 km) downstream read several times daily during high water.

AVERAGE DISCHARGE.--34 years, 696 ft³/s (19.7 m³/s), 9.14 in/yr (232 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,690 ft³/s (161 m³/s) May 5, gage height, 15.84 ft (4.828 m); minimum daily, 470 ft³/s (13.3 m³/s) Dec. 10-15.
Period of record: Maximum discharge, 15,100 ft³/s (428 m³/s) July 1, 1969, gage height, 21.46 ft (6.541 m); no flow for part of Dec. 14, 1939.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 1308: 1949-50(M). WRD Wis. 1971: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 6 to Feb. 26.)

| | | | |
|---|---|---|---|
| 4.0 | 440 | 12.0 | 2,640 |
| 6.0 | 900 | 14.0 | 3,810 |
| 8.0 | 1,430 | 16.0 | 5,900 |
| 10.0 | 1,990 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,360 | 1,030 | 761 | 2,600 | 1,200 | 1,040 | 1,180 | 2,780 | 2,330 | 1,090 | 781 | 606 |
| 2 | 1,110 | 1,230 | 756 | 2,900 | 2,500 | 1,690 | 1,460 | 3,680 | 2,010 | 1,070 | 769 | 613 |
| 3 | 997 | 1,350 | 722 | 3,500 | 3,180 | 2,090 | 1,640 | 4,390 | 1,820 | 1,140 | 756 | 636 |
| 4 | 931 | 1,290 | 588 | 3,700 | 3,700 | 2,100 | 1,600 | 5,280 | 1,750 | 1,580 | 743 | 749 |
| 5 | 911 | 1,170 | 536 | 3,300 | 3,300 | 1,870 | 1,490 | 5,650 | 1,750 | 1,750 | 740 | 744 |
| 6 | 878 | 1,080 | 520 | 2,500 | 2,200 | 1,510 | 1,380 | 5,190 | 1,690 | 1,490 | 739 | 689 |
| 7 | 859 | 1,050 | 500 | 2,000 | 1,200 | 2,950 | 1,290 | 4,630 | 1,600 | 1,210 | 727 | 641 |
| 8 | 856 | 1,040 | 480 | 1,500 | 730 | 3,240 | 1,230 | 4,670 | 1,520 | 1,090 | 716 | 618 |
| 9 | 816 | 1,020 | 480 | 1,200 | 600 | 4,080 | 1,210 | 4,690 | 1,450 | 1,030 | 725 | 627 |
| 10 | 776 | 985 | 470 | 1,100 | 580 | 4,370 | 1,110 | 4,780 | 1,390 | 997 | 739 | 653 |
| 11 | 803 | 958 | 470 | 960 | 560 | 3,800 | 1,140 | 4,500 | 1,330 | 981 | 733 | 670 |
| 12 | 818 | 942 | 470 | 760 | 560 | 3,080 | 1,390 | 4,020 | 1,330 | 970 | 700 | 646 |
| 13 | 808 | 922 | 470 | 660 | 540 | 2,770 | 1,630 | 3,520 | 1,390 | 931 | 678 | 620 |
| 14 | 769 | 920 | 470 | 620 | 540 | 2,770 | 1,860 | 3,090 | 1,400 | 907 | 673 | 608 |
| 15 | 729 | 935 | 470 | 600 | 540 | 2,630 | 2,060 | 2,790 | 1,310 | 892 | 688 | 604 |
| 16 | 715 | 922 | 480 | 580 | 520 | 2,640 | 2,330 | 2,540 | 1,310 | 880 | 697 | 602 |
| 17 | 716 | 912 | 480 | 860 | 520 | 2,660 | 2,550 | 2,330 | 1,650 | 867 | 676 | 634 |
| 18 | 703 | 908 | 490 | 1,600 | 540 | 2,390 | 2,740 | 2,190 | 1,920 | 854 | 660 | 715 |
| 19 | 681 | 888 | 500 | 1,900 | 540 | 2,090 | 2,890 | 2,110 | 2,120 | 842 | 650 | 739 |
| 20 | 667 | 869 | 520 | 2,200 | 540 | 1,820 | 2,830 | 2,060 | 2,060 | 877 | 643 | 682 |
| 21 | 727 | 859 | 520 | 2,500 | 560 | 1,620 | 3,090 | 2,010 | 1,730 | 882 | 649 | 679 |
| 22 | 1,050 | 847 | 540 | 3,100 | 560 | 1,470 | 3,530 | 1,990 | 1,450 | 885 | 635 | 821 |
| 23 | 1,820 | 838 | 520 | 3,300 | 560 | 1,370 | 3,870 | 1,990 | 1,340 | 884 | 666 | 884 |
| 24 | 2,020 | 823 | 520 | 2,700 | 740 | 1,300 | 4,000 | 1,950 | 1,320 | 911 | 760 | 698 |
| 25 | 1,950 | 826 | 520 | 2,200 | 1,100 | 1,260 | 3,800 | 1,950 | 1,300 | 894 | 821 | 806 |
| 26 | 1,680 | 852 | 520 | 1,400 | 1,000 | 1,220 | 3,350 | 1,940 | 1,250 | 871 | 748 | 915 |
| 27 | 1,410 | 869 | 500 | 1,300 | 836 | 1,180 | 2,880 | 2,030 | 1,200 | 850 | 693 | 940 |
| 28 | 1,260 | 845 | 500 | 1,300 | 841 | 1,140 | 2,480 | 2,370 | 1,190 | 835 | 662 | 869 |
| 29 | 1,170 | 799 | 500 | 1,200 | ------ | 1,100 | 2,260 | 2,580 | 1,160 | 816 | 638 | 935 |
| 30 | 1,100 | 763 | 1,900 | 1,000 | ------ | 1,080 | 2,380 | 2,790 | 1,120 | 796 | 622 | 1,050 |
| 31 | 1,050 | ------ | 2,400 | 800 | ------ | 1,070 | ------ | 2,700 | ------ | 793 | 613 | ------ |
| TOTAL | 32,140 | 28,742 | 19,573 | 55,840 | 30,707 | 65,400 | 66,650 | 99,190 | 46,190 | 30,865 | 21,740 | 21,613 |
| MEAN | 1,037 | 958 | 631 | 1,801 | 1,097 | 2,110 | 2,222 | 3,200 | 1,540 | 996 | 701 | 720 |
| MAX | 2,020 | 1,350 | 2,400 | 3,700 | 3,700 | 4,370 | 4,000 | 5,650 | 2,330 | 1,750 | 821 | 1,050 |
| MIN | 667 | 763 | 470 | 580 | 520 | 1,040 | 1,110 | 1,940 | 1,120 | 793 | 613 | 682 |
| CFSM | 1.00 | .92 | .61 | 1.73 | 1.05 | 2.03 | 2.14 | 3.08 | 1.48 | .96 | .67 | .69 |
| IN. | 1.15 | 1.03 | .70 | 2.00 | 1.10 | 2.34 | 2.38 | 3.55 | 1.65 | 1.10 | .78 | .77 |

CAL YR 1972 TOTAL 278,767 MEAN 762 MAX 3,940 MIN 280 CFSM .73 IN 9.97
WTR YR 1973 TOTAL 518,650 MEAN 1,421 MAX 5,650 MIN 470 CFSM 1.37 IN 18.55

PEAK DISCHARGE (BASE, 4,000 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 3-10 | 0400 | 14.82 | 4,470 | 5- 5 | 0500 | 15.84 | 5,690 |
| 4-24 | 0700 | 14.29 | 4,010 | | | | |

## ROCK RIVER BASIN

### 05436500 Sugar River near Brodhead, Wis.

LOCATION.--Lat 42°36'42", long 89°23'53", in SW¼ sec.26, T.2 N., R.9 E., Green County, on left bank at downstream side of highway bridge, 1.2 mi (1.9 km) southwest of Brodhead, and 1.9 mi (3.1 km) upstream from Sylvester Creek.

DRAINAGE AREA.--523 mi² (1,355 km²), revised.

PERIOD OF RECORD.--January 1914 to current year. Monthly discharge only for January and February 1914, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 768.14 ft (234.129 m) above mean sea level. Prior to Oct. 17, 1938, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--59 years, 338 ft³/s (9.57 m³/s), 8.78 in/yr (223 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,840 ft³/s (109 m³/s), Mar. 8, gage height, 7.42 ft (2.262 m); minimum, 170 ft³/s (4.81 m³/s) Dec. 4, gage height, 0.54 ft (0.165 m), result of freezeup.
Period of record: Maximum discharge, 14,800 ft³/s (419 m³/s) Sept. 13, 1915, gage height, 11.4 ft (3.47 m) from floodmarks, from rating curve extended above 7,500 ft³/s (212 m³/s); minimum, 35 ft³/s (0.99 m³/s) Sept. 19, 1959, gage height, -0.16 ft (-0.049 m).

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 1238: 1914-16, 1918, 1922, 1927, 1933. WSP 1508: 1916-17(M), 1919(M), 1920, 1921(M), 1927-28(M), 1930(M), 1931, 1936(M), 1943(M). WRD Wis. 1971: Drainage area.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 1 to Jan. 18, Jan. 27-30, Feb. 10-23.)

Oct. 1 to Feb. 2

| | | | |
|---|---|---|---|
| 0.7 | 217 | 3.0 | 912 |
| 1.0 | 280 | 4.0 | 1,270 |
| 2.0 | 561 | 5.0 | 1,630 |

Feb. 3 to Sept. 30

| | | | |
|---|---|---|---|
| 1.0 | 257 | 5.0 | 1,750 |
| 2.0 | 539 | 6.0 | 2,270 |
| 3.0 | 884 | 7.0 | 3,210 |
| 4.0 | 1,280 | 8.0 | 4,980 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 452 | 422 | 300 | 1,600 | 425 | 370 | 489 | 1,370 | 806 | 484 | 314 | 267 |
| 2 | 392 | 451 | 290 | 1,300 | 1,290 | 701 | 671 | 2,620 | 691 | 410 | 314 | 264 |
| 3 | 367 | 512 | 280 | 958 | 2,330 | 1,000 | 838 | 3,010 | 657 | 487 | 309 | 274 |
| 4 | 349 | 539 | 250 | 850 | 2,200 | 1,250 | 877 | 2,310 | 643 | 540 | 304 | 337 |
| 5 | 336 | 490 | 220 | 750 | 1,240 | 1,500 | 789 | 1,630 | 667 | 916 | 306 | 387 |
| 6 | 330 | 437 | 230 | 580 | 694 | 1,900 | 657 | 1,230 | 657 | 938 | 299 | 362 |
| 7 | 326 | 415 | 240 | 520 | 464 | 2,520 | 562 | 1,210 | 620 | 667 | 294 | 309 |
| 8 | 324 | 403 | 250 | 480 | 379 | 3,590 | 508 | 2,140 | 562 | 467 | 296 | 284 |
| 9 | 313 | 397 | 260 | 470 | 335 | 2,550 | 511 | 3,040 | 537 | 431 | 311 | 304 |
| 10 | 304 | 387 | 260 | 450 | 330 | 1,400 | 422 | 2,450 | 511 | 437 | 337 | 311 |
| 11 | 316 | 375 | 260 | 430 | 340 | 1,100 | 431 | 1,710 | 461 | 419 | 322 | 309 |
| 12 | 310 | 366 | 260 | 420 | 320 | 1,200 | 559 | 1,290 | 527 | 399 | 299 | 289 |
| 13 | 322 | 359 | 260 | 400 | 290 | 1,310 | 719 | 1,090 | 540 | 376 | 291 | 281 |
| 14 | 309 | 365 | 260 | 380 | 280 | 1,260 | 960 | 990 | 521 | 356 | 289 | 279 |
| 15 | 299 | 361 | 260 | 350 | 270 | 1,500 | 1,170 | 916 | 482 | 354 | 291 | 279 |
| 16 | 308 | 350 | 280 | 310 | 260 | 1,260 | 1,430 | 848 | 492 | 348 | 286 | 279 |
| 17 | 286 | 358 | 270 | 350 | 260 | 1,020 | 1,430 | 792 | 817 | 343 | 284 | 316 |
| 18 | 285 | 358 | 270 | 450 | 250 | 810 | 1,360 | 747 | 1,240 | 337 | 281 | 356 |
| 19 | 284 | 355 | 300 | 1,340 | 250 | 729 | 1,080 | 888 | 1,040 | 340 | 279 | 370 |
| 20 | 285 | 348 | 310 | 1,450 | 250 | 640 | 913 | 870 | 736 | 348 | 281 | 335 |
| 21 | 324 | 343 | 300 | 1,340 | 260 | 579 | 1,380 | 848 | 582 | 359 | 274 | 322 |
| 22 | 431 | 342 | 290 | 961 | 260 | 537 | 2,230 | 789 | 518 | 356 | 269 | 337 |
| 23 | 903 | 338 | 280 | 750 | 280 | 582 | 2,410 | 747 | 492 | 359 | 296 | 332 |
| 24 | 1,000 | 332 | 280 | 707 | 294 | 492 | 1,550 | 722 | 518 | 365 | 332 | 306 |
| 25 | 1,070 | 333 | 270 | 621 | 260 | 476 | 1,080 | 758 | 582 | 362 | 343 | 365 |
| 26 | 982 | 347 | 280 | 459 | 250 | 464 | 880 | 792 | 470 | 362 | 322 | 437 |
| 27 | 625 | 355 | 280 | 434 | 250 | 449 | 785 | 982 | 464 | 362 | 301 | 446 |
| 28 | 457 | 347 | 280 | 400 | 250 | 434 | 715 | 1,420 | 446 | 348 | 291 | 425 |
| 29 | 435 | 326 | 280 | 370 | ------ | 425 | 733 | 1,700 | 431 | 329 | 271 | 572 |
| 30 | 426 | 319 | 300 | 350 | ------ | 419 | 920 | 1,510 | 404 | 324 | 269 | 654 |
| 31 | 429 | ------ | 1,200 | 392 | ------ | 416 | ------ | 1,080 | ------ | 322 | 267 | ------ |
| TOTAL | 13,499 | 11,440 | 9,240 | 20,618 | 14,561 | 32,803 | 29,859 | 42,411 | 18,034 | 13,085 | 9,222 | 10,388 |
| MEAN | 435 | 381 | 298 | 665 | 520 | 1,058 | 989 | 1,368 | 601 | 422 | 297 | 346 |
| MAX | 1,070 | 539 | 1,200 | 1,600 | 2,330 | 3,590 | 2,410 | 3,040 | 1,240 | 938 | 343 | 654 |
| MIN | 284 | 319 | 220 | 310 | 250 | 370 | 422 | 722 | 404 | 322 | 267 | 264 |
| CFSM | .83 | .73 | .57 | 1.27 | .99 | 2.02 | 1.85 | 2.62 | 1.15 | .81 | .57 | .66 |
| IN. | .95 | .81 | .66 | 1.47 | 1.04 | 2.33 | 2.07 | 3.02 | 1.28 | .93 | .66 | .74 |

CAL YR 1972 TOTAL 134,495 MEAN 367 MAX 1,630 MIN 140 CFSM .70 IN 9.56
WTR YR 1973 TOTAL 224,359 MEAN 615 MAX 3,590 MIN 220 CFSM 1.16 IN 15.95

PEAK DISCHARGE (BASE, 1,300 FT³/S)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|---|---|---|---|---|---|---|---|
| 1- 1 | -- | -- | a1,650 | 4-23 | 0600 | 6.47 | 2,630 |
| 1-19 | 1300 | 4.65 | 1,510 | 5- 3 | 0300 | 6.96 | 3,160 |
| 2- 3 | 2300 | 6.34 | 2,520 | 5- 9 | 0600 | 6.91 | 3,090 |
| 3- 8 | 1400 | 7.42 | 3,840 | 5-29 | 1200 | 5.04 | 1,770 |
| 3-13 | 0200 | 4.23 | 1,380 | 6-18 | 1300 | 4.06 | 1,300 |
| 4-16 | 1800 | 4.69 | 1,600 | | | | |

a About.

## 05437500 Rock River at Rockton, Ill.

LOCATION.--Lat 42°26'55", long 89°04'11", SW¼ SW¼ sec.24, T.46 N., R.1 E., Winnebago County, on right bank 750 ft (229 m) downstream from State Highway 75 in Rockton, 1.0 mi (1.6 km) downstream from Pecatonica River.

DRAINAGE AREA.--6,361 $mi^2$ (16,475 $km^2$).

PERIOD OF RECORD.--June 1903 to July 1906, October 1906 to March 1909, July 1914 to Sept. 1919, October 1939 to current year. Published as "below mouth of Pecatonica River at Rockton" 1903-09; as "at Rockford" 1914-19. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 707.94 ft (215.780 m) above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1906, nonrecording gage at same site at datum about 1 ft (0.30 m) higher. Oct. 1, 1906, to Mar. 31, 1909, nonrecording gage at same site at datum about 2 ft (0.61 m) higher. July 30, 1914, to Apr. 30, 1919, nonrecording gage at site at Rockford about 21 mi (34 km) downstream, at different datum. Oct. 1, 1939, to Aug. 10, 1973, at site 800 ft (244 m) upstream at same datum.

AVERAGE DISCHARGE.--41 years (1903-05, 1919-19, 1939-73), 3,779 $ft^3/s$ (107.0 $m^3/s$), 8.07 in/yr (205 mm/yr), discharge for site at Rockford adjusted for difference in drainage area.

EXTREMES.--Current year: Maximum discharge, 24,300 $ft^3/s$ (688 $m^3/s$) Apr. 22 (gage height, 13.40 ft or 4.084 m); minimum daily, 2,750 $ft^3/s$ (77.9 $m^3/s$) Sept. 1, 3.
Period of record: Maximum discharge, 32,500 $ft^3/s$ (920 $m^3/s$) Mar. 30, 1916 (gage height, 13.06 ft or 3.981 m, site and datum then in use); minimum daily, 501 $ft^3/s$ (14.2 $m^3/s$) Sept. 14, 1958.
Flood in February 1937 reached a stage of 14.6 ft (4.450 m), backwater from ice, from painted floodmark.

REMARKS.--Records good. Low flow regulated by powerplant above station.

REVISIONS (WATER YEARS).--WSP 325: 1909-9. WSP 895: 1904(M). WSP 1508: 1915, 1916-17(M). WRD Ill. 1972: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10,400 | 8,640 | 5,200 | 9,040 | 7,770 | 5,840 | 10,500 | 18,700 | 14,200 | 5,820 | 3,270 | 2,750 |
| 2 | 10,500 | 8,780 | 4,960 | 9,840 | 10,400 | 6,900 | 11,000 | 21,000 | 14,000 | 5,610 | 3,290 | 2,760 |
| 3 | 10,300 | 9,010 | 4,830 | 10,600 | 13,200 | 7,820 | 11,200 | 21,800 | 13,700 | 5,630 | 3,400 | 2,750 |
| 4 | 9,750 | 9,210 | 4,090 | 12,200 | 12,100 | 7,920 | 11,400 | 21,700 | 13,300 | 7,230 | 3,190 | 3,040 |
| 5 | 9,300 | 9,250 | 4,160 | 12,200 | 12,400 | 8,350 | 11,500 | 21,600 | 13,000 | 7,700 | 3,090 | 3,600 |
| 6 | 8,950 | 9,060 | 3,700 | 11,900 | 12,700 | 9,080 | 11,300 | 21,400 | 12,700 | 6,730 | 3,110 | 4,090 |
| 7 | 8,710 | 8,850 | 3,400 | 11,700 | 12,400 | 13,600 | 11,100 | 21,100 | 12,200 | 6,570 | 3,160 | 3,750 |
| 8 | 8,320 | 8,570 | 3,830 | 11,000 | 11,400 | 14,500 | 10,900 | 21,800 | 11,600 | 6,490 | 3,170 | 3,400 |
| 9 | 8,120 | 8,350 | 3,860 | 10,300 | 10,600 | 15,000 | 10,700 | 22,500 | 11,000 | 6,020 | 3,400 | 3,300 |
| 10 | 7,880 | 8,190 | 3,920 | 9,500 | 10,000 | 16,000 | 10,600 | 23,000 | 10,500 | 5,520 | 3,380 | 3,150 |
| 11 | 7,880 | 8,020 | 4,000 | 8,520 | 8,680 | 16,500 | 9,930 | 23,200 | 9,920 | 5,190 | 3,320 | 3,060 |
| 12 | 8,100 | 7,790 | 3,800 | 8,200 | 7,520 | 16,400 | 9,910 | 22,700 | 9,520 | 4,830 | 3,160 | 3,250 |
| 13 | 7,900 | 7,720 | 3,620 | 7,080 | 7,080 | 16,200 | 10,400 | 21,500 | 9,290 | 4,490 | 3,200 | 3,210 |
| 14 | 7,510 | 8,030 | 3,720 | 6,000 | 6,920 | 16,800 | 11,000 | 20,200 | 8,910 | 4,060 | 3,170 | 3,100 |
| 15 | 7,260 | 7,750 | 3,800 | 5,530 | 6,600 | 17,400 | 11,500 | 18,900 | 8,450 | 3,530 | 3,230 | 3,050 |
| 16 | 6,930 | 7,360 | 3,660 | 5,190 | 5,400 | 17,200 | 12,100 | 17,800 | 8,130 | 3,780 | 3,200 | 3,000 |
| 17 | 6,750 | 7,300 | 3,910 | 5,000 | 5,150 | 17,300 | 12,800 | 16,800 | 9,190 | 3,620 | 3,110 | 3,100 |
| 18 | 6,690 | 7,160 | 3,670 | 5,820 | 5,540 | 17,000 | 13,100 | 16,000 | 9,170 | 3,630 | 3,040 | 3,200 |
| 19 | 6,430 | 7,090 | 3,630 | 6,880 | 5,690 | 16,400 | 13,400 | 15,600 | 9,460 | 3,570 | 3,060 | 3,300 |
| 20 | 6,150 | 6,980 | 3,380 | 7,560 | 5,730 | 16,000 | 13,600 | 15,100 | 9,510 | 3,620 | 3,100 | 3,500 |
| 21 | 6,300 | 6,750 | 3,650 | 7,710 | 5,620 | 15,500 | 20,100 | 14,200 | 9,360 | 3,680 | 3,220 | 3,350 |
| 22 | 6,770 | 6,660 | 3,550 | 8,450 | 5,300 | 14,900 | 23,200 | 13,700 | 9,070 | 3,840 | 3,050 | 3,480 |
| 23 | 8,720 | 6,430 | 3,530 | 8,970 | 5,180 | 14,300 | 21,100 | 13,300 | 8,660 | 3,810 | 3,110 | 4,550 |
| 24 | 9,400 | 6,090 | 3,540 | 8,920 | 5,130 | 13,600 | 20,400 | 12,800 | 8,320 | 3,720 | 3,120 | 4,800 |
| 25 | 9,430 | 6,120 | 3,580 | 8,930 | 5,430 | 12,900 | 20,200 | 12,900 | 7,710 | 3,750 | 3,170 | 4,650 |
| 26 | 9,550 | 6,110 | 3,500 | 9,020 | 5,640 | 12,300 | 19,600 | 12,700 | 7,310 | 3,800 | 3,250 | 5,100 |
| 27 | 9,820 | 5,940 | 3,370 | 9,260 | 5,550 | 11,600 | 18,600 | 12,700 | 6,930 | 3,700 | 3,300 | 5,400 |
| 28 | 9,920 | 5,840 | 3,430 | 9,780 | 5,420 | 11,000 | 17,700 | 13,900 | 6,540 | 3,580 | 3,070 | 5,300 |
| 29 | 9,830 | 5,580 | 3,290 | 9,320 | ------ | 10,700 | 17,100 | 14,000 | 6,160 | 3,490 | 2,990 | 5,200 |
| 30 | 9,380 | 5,360 | 7,500 | 8,810 | ------ | 10,300 | 18,100 | 14,100 | 6,040 | 3,400 | 2,940 | 6,300 |
| 31 | 8,920 | ------ | 10,400 | 8,460 | ------ | 10,100 | ------ | 14,300 | ------ | 3,370 | 2,810 | ------ |
| TOTAL | 261,870 | 223,990 | 128,480 | 271,690 | 220,550 | 409,410 | 424,040 | 551,000 | 293,850 | 143,780 | 98,080 | 112,490 |
| MEAN | 8,447 | 7,466 | 4,145 | 8,764 | 7,877 | 13,210 | 14,130 | 17,770 | 9,795 | 4,638 | 3,164 | 3,750 |
| MAX | 10,500 | 9,250 | 10,400 | 12,200 | 13,200 | 17,400 | 23,200 | 23,200 | 14,200 | 7,700 | 3,400 | 6,300 |
| MIN | 6,150 | 5,360 | 3,290 | 5,000 | 5,130 | 5,840 | 9,910 | 12,700 | 6,040 | 3,370 | 2,810 | 2,750 |
| CFSM | 1.34 | 1.19 | .66 | 1.39 | 1.25 | 2.10 | 2.25 | 2.83 | 1.56 | .74 | .50 | .60 |
| IN. | 1.55 | 1.32 | .76 | 1.61 | 1.30 | 2.42 | 2.51 | 3.26 | 1.74 | .85 | .58 | .67 |

CAL YR 1972 TOTAL 1,947,010 MEAN 5,320 MAX 11,800 MIN 1,080 CFSM .85 IN 11.51
WTR YR 1973 TOTAL 3,139,230 MEAN 8,601 MAX 23,200 MIN 2,750 CFSM 1.37 IN 18.57

# ILLINOIS RIVER BASIN

## 05527800 Des Plaines River at Russell, Ill.

LOCATION.--Lat 42°29'22", long 87°55'32", in SE¼ sec.3, T.46 N., R.11 E., Lake County, at center on downstream side of bridge on Russell Road, 0.3 mi (0.5 km) west of Russell, 7.2 mi (11.6 km) upstream from Mill Creek, and at mile 109.14 (175.61 km).

DRAINAGE AREA.--124 $mi^2$ (321 $km^2$).

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1961-63, and annual maximum stages, water years 1962-66, June 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 662.00 ft (201.778 m) above mean sea level. Oct. 17, 1961 to June 29, 1967, crest-stage gage at left downstream side of bridge at datum 4.29 ft (1.308 m) higher.

AVERAGE DISCHARGE.--6 years, 91.4 $ft^3/s$ (2.588 $m^3/s$), 10.01 in/yr (254 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,100 $ft^3/s$ (31.2 $m^3/s$) Apr. 23 (gage height, 7.74 ft or 2.359 m); minimum, 0.84 $ft^3/s$ (0.024 $m^3/s$) Sept. 1.
Period of record: Maximum discharge, 1,100 $ft^3/s$ (31.2 $m^3/s$) Apr. 23, 1973 (gage height, 7.74 ft or 2.359 m); maximum gage height, 9.40 ft (2.865 m) Sept. 22, 1972; no flow at times most years.
Maximum stage since 1938, 9.69 ft (2.954 m), present datum, in April 1960, from floodmark.

REMARKS.--Records good except those for winter periods, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 434 | 258 | 85 | 505 | 76 | 88 | 133 | 296 | 254 | 19 | 3.0 | .90 |
| 2 | 407 | 249 | 79 | 559 | 103 | 148 | 180 | 575 | 195 | 16 | 3.0 | 1.1 |
| 3 | 379 | 247 | 75 | 588 | 150 | 194 | 221 | 776 | 141 | 15 | 2.8 | 1.4 |
| 4 | 354 | 247 | 76 | 610 | 180 | 227 | 242 | 755 | 110 | 14 | 2.6 | 1.8 |
| 5 | 329 | 242 | 69 | 588 | 186 | 261 | 246 | 595 | 105 | 13 | 2.5 | 3.1 |
| 6 | 301 | 229 | 60 | 533 | 178 | 316 | 239 | 458 | 116 | 12 | 2.3 | 4.1 |
| 7 | 270 | 213 | 50 | 450 | 152 | 375 | 223 | 361 | 140 | 9.8 | 2.2 | 3.9 |
| 8 | 239 | 197 | 42 | 280 | 122 | 410 | 200 | 313 | 143 | 8.5 | 1.8 | 3.0 |
| 9 | 205 | 180 | 39 | 210 | 97 | 417 | 180 | 300 | 138 | 8.0 | 1.8 | 3.4 |
| 10 | 170 | 164 | 38 | 170 | 80 | 399 | 169 | 298 | 104 | 8.2 | 1.9 | 3.7 |
| 11 | 146 | 148 | 37 | 120 | 66 | 378 | 170 | 275 | 76 | 12 | 1.8 | 3.4 |
| 12 | 136 | 132 | 36 | 90 | 58 | 365 | 219 | 240 | 56 | 13 | 1.5 | 3.2 |
| 13 | 138 | 120 | 39 | 65 | 53 | 345 | 304 | 205 | 43 | 9.0 | 1.4 | 3.0 |
| 14 | 118 | 153 | 40 | 47 | 49 | 375 | 432 | 185 | 34 | 7.3 | 1.4 | 2.7 |
| 15 | 102 | 196 | 39 | 39 | 45 | 426 | 575 | 174 | 29 | 7.0 | 1.4 | 2.7 |
| 16 | 87 | 214 | 38 | 35 | 41 | 432 | 705 | 162 | 60 | 7.0 | 1.1 | 2.7 |
| 17 | 77 | 217 | 36 | 45 | 38 | 408 | 725 | 144 | 114 | 6.8 | 1.1 | 3.9 |
| 18 | 68 | 211 | 35 | 69 | 37 | 348 | 620 | 124 | 151 | 6.1 | 1.1 | 5.6 |
| 19 | 59 | 198 | 37 | 109 | 36 | 298 | 515 | 109 | 146 | 5.0 | 1.2 | 6.1 |
| 20 | 51 | 181 | 40 | 150 | 35 | 266 | 412 | 101 | 110 | 4.2 | 1.3 | 5.4 |
| 21 | 52 | 163 | 48 | 200 | 37 | 236 | 372 | 92 | 80 | 4.2 | 1.4 | 4.5 |
| 22 | 82 | 145 | 51 | 230 | 36 | 212 | 655 | 83 | 60 | 6.8 | 1.3 | 5.2 |
| 23 | 185 | 126 | 52 | 240 | 37 | 189 | 1,060 | 84 | 48 | 8.7 | 1.3 | 4.7 |
| 24 | 253 | 113 | 49 | 237 | 38 | 170 | 938 | 86 | 44 | 7.8 | 1.4 | 4.2 |
| 25 | 303 | 104 | 46 | 220 | 37 | 150 | 675 | 86 | 40 | 7.0 | 1.5 | 6.0 |
| 26 | 333 | 107 | 47 | 187 | 34 | 131 | 478 | 87 | 34 | 6.6 | 1.7 | 7.5 |
| 27 | 342 | 114 | 49 | 158 | 33 | 116 | 351 | 87 | 30 | 6.3 | 1.5 | 7.5 |
| 28 | 338 | 114 | 47 | 140 | 45 | 102 | 270 | 160 | 28 | 5.6 | 1.3 | 7.5 |
| 29 | 324 | 103 | 49 | 129 | ------ | 95 | 221 | 241 | 24 | 4.7 | 1.1 | 8.7 |
| 30 | 303 | 91 | 160 | 103 | ------ | 96 | 213 | 303 | 22 | 4.4 | 1.1 | 18 |
| 31 | 280 | ------ | 389 | 90 | ------ | 99 | ------ | 298 | ------ | 3.7 | 1.0 | ------ |
| TOTAL | 6,857 | 5,176 | 1,977 | 7,196 | 2,079 | 8,072 | 11,943 | 8,053 | 2,675 | 266.7 | 51.8 | 138.90 |
| MEAN | 221 | 173 | 63.8 | 232 | 74.3 | 260 | 398 | 260 | 89.2 | 8.60 | 1.67 | 4.63 |
| MAX | 434 | 258 | 389 | 610 | 186 | 432 | 1,060 | 776 | 254 | 19 | 3.0 | 18 |
| MIN | 51 | 91 | 35 | 35 | 33 | 88 | 133 | 83 | 22 | 3.7 | 1.0 | .90 |
| CFSM | 1.78 | 1.40 | .51 | 1.87 | .60 | 2.10 | 3.21 | 2.10 | .72 | .07 | .01 | .04 |
| IN. | 2.06 | 1.55 | .59 | 2.16 | .62 | 2.42 | 3.58 | 2.42 | .80 | .08 | .02 | .04 |

CAL YR 1972 TOTAL 64,435.00 MEAN 176 MAX 809 MIN 2.3 CFSM 1.42 IN 19.33
WTR YR 1973 TOTAL 54,485.40 MEAN 149 MAX 1,060 MIN .90 CFSM 1.20 IN 16.35

## 05543830 Fox River at Waukesha, Wis.

**LOCATION.**--Lat 43°99'17", long 88°14'37", in SW¼ sec.3, T.6 N., R.18 E., Waukesha County, on left bank 20 ft (6.10 m) downstream from Prairie Street bridge in Waukesha, 1.0 mi (1.6 km) downstream from dam and 3.2 mi (5.1 km) downstream from Pewaukee River.

**DRAINAGE AREA.**--127 mi² (329 km²).

**PERIOD OF RECORD.**--January 1963 to current year.

**GAGE.**--Water-stage recorder. Datum of gage is 793.04 ft (241.718 m) above mean sea level (levels by city of Waukesha).

**AVERAGE DISCHARGE.**--10 years, 80.8 ft³/s (2.288 m³/s), 8.64 in/yr (219 mm/yr).

**EXTREMES.**--Current year: Maximum discharge, 2,260 ft³/s (64.0 m³/s) Apr. 22, gage height, 7.42 ft (2.262 m); minimum, 4.8 ft³/s (0.14 m³/s) Sept. 16, 17, gage height, 1.58 ft (0.482 m).
Period of record: Maximum discharge, 2,260 ft³/s (64.0 m³/s) Apr. 22, 1973, gage height, 7.42 ft (2.262 m); minimum, 3.0 ft³/s (0.085 m³/s) Jan. 1, 1964, gage height, 1.52 ft (0.463 m).

**REMARKS.**--Records good except those for winter periods, which are fair. Occasional regulation from mill dam one mile upstream.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 5-20, Jan. 6-15, Jan. 28 to Feb. 1, Feb. 9-12, 14-28.)

| Oct. 1 to Apr. 20 | | | | Apr. 21 to Sept. 30 | | | |
|---|---|---|---|---|---|---|---|
| 2.1 | 36 | 4.0 | 395 | 1.6 | 5.2 | 4.0 | 402 |
| 2.5 | 81 | 5.0 | 705 | 1.7 | 7.7 | 5.0 | 790 |
| 3.0 | 162 | 6.0 | 1,120 | 1.9 | 15 | 6.0 | 1,320 |
| | | | | 2.1 | 25 | 7.0 | 1,960 |
| | | | | 2.5 | 60 | 8.0 | 2,720 |
| | | | | 3.0 | 144 | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 386 | 236 | 93 | 480 | 100 | 95 | 166 | 374 | 275 | 79 | 31 | 19 |
| 2 | 357 | 231 | 89 | 448 | 235 | 140 | 193 | 472 | 239 | 74 | 32 | 19 |
| 3 | 331 | 230 | 87 | 357 | 304 | 264 | 195 | 489 | 210 | 82 | 30 | 21 |
| 4 | 313 | 215 | 78 | 323 | 291 | 310 | 209 | 393 | 167 | 80 | 28 | 64 |
| 5 | 306 | 199 | 70 | 265 | 288 | 327 | 228 | 384 | 176 | 80 | 27 | 61 |
| 6 | 281 | 184 | 58 | 240 | 236 | 307 | 211 | 262 | 172 | 74 | 27 | 51 |
| 7 | 259 | 184 | 56 | 180 | 198 | 320 | 186 | 259 | 157 | 68 | 27 | 48 |
| 8 | 235 | 183 | 52 | 150 | 150 | 330 | 172 | 307 | 138 | 63 | 28 | 27 |
| 9 | 210 | 177 | 52 | 120 | 120 | 305 | 158 | 332 | 129 | 59 | 32 | 22 |
| 10 | 190 | 168 | 50 | 110 | 100 | 283 | 126 | 301 | 116 | 57 | 33 | 24 |
| 11 | 148 | 164 | 49 | 96 | 92 | 274 | 182 | 267 | 104 | 48 | 33 | 23 |
| 12 | 195 | 159 | 48 | 86 | 100 | 276 | 180 | 239 | 100 | 52 | 29 | 20 |
| 13 | 158 | 152 | 47 | 78 | 107 | 262 | 214 | 222 | 93 | 58 | 28 | 19 |
| 14 | 147 | 142 | 46 | 70 | 100 | 355 | 303 | 229 | 88 | 52 | 24 | 19 |
| 15 | 139 | 139 | 46 | 66 | 88 | 411 | 529 | 222 | 99 | 56 | 20 | 12 |
| 16 | 133 | 145 | 45 | 92 | 58 | 400 | 768 | 205 | 172 | 48 | 25 | 5.7 |
| 17 | 127 | 143 | 43 | 109 | 52 | 352 | 828 | 187 | 277 | 45 | 22 | 29 |
| 18 | 120 | 133 | 46 | 203 | 52 | 305 | 642 | 144 | 280 | 33 | 13 | 67 |
| 19 | 113 | 122 | 54 | 295 | 52 | 262 | 467 | 167 | 232 | 37 | 22 | 47 |
| 20 | 109 | 117 | 60 | 241 | 54 | 222 | 360 | 174 | 203 | 35 | 26 | 27 |
| 21 | 127 | 114 | 67 | 221 | 52 | 205 | 1,490 | 165 | 178 | 39 | 21 | 26 |
| 22 | 189 | 110 | 71 | 229 | 52 | 184 | 2,160 | 174 | 152 | 34 | 23 | 26 |
| 23 | 295 | 106 | 70 | 248 | 50 | 138 | 1,800 | 189 | 138 | 33 | 31 | 26 |
| 24 | 363 | 103 | 69 | 218 | 50 | 156 | 990 | 199 | 121 | 34 | 29 | 27 |
| 25 | 378 | 103 | 69 | 190 | 49 | 144 | 522 | 269 | 114 | 32 | 27 | 45 |
| 26 | 361 | 106 | 70 | 167 | 49 | 137 | 359 | 282 | 107 | 53 | 25 | 76 |
| 27 | 337 | 109 | 67 | 150 | 50 | 135 | 275 | 309 | 104 | 48 | 25 | 57 |
| 28 | 312 | 107 | 70 | 130 | 54 | 133 | 249 | 584 | 93 | 42 | 23 | 71 |
| 29 | 284 | 98 | 79 | 100 | ------ | 133 | 237 | 632 | 92 | 33 | 23 | 109 |
| 30 | 258 | 97 | 260 | 90 | ------ | 137 | 267 | 489 | 85 | 37 | 21 | 104 |
| 31 | 245 | ------ | 471 | 80 | ------ | 140 | ------ | 359 | ------ | 33 | 22 | ------ |
| TOTAL | 7,406 | 4,476 | 2,532 | 5,832 | 3,183 | 7,442 | 14,666 | 9,200 | 4,611 | 1,584 | 815 | 1,191.7 |
| MEAN | 239 | 149 | 81.7 | 188 | 114 | 240 | 489 | 297 | 154 | 51.1 | 26.3 | 39.7 |
| MAX | 386 | 236 | 471 | 480 | 304 | 411 | 2,160 | 632 | 280 | 82 | 33 | 109 |
| MIN | 109 | 97 | 43 | 66 | 49 | 95 | 126 | 144 | 85 | 32 | 13 | 5.7 |
| CFSM | 1.88 | 1.17 | .64 | 1.48 | .90 | 1.89 | 3.85 | 2.34 | 1.21 | .40 | .21 | .31 |
| IN. | 2.17 | 1.31 | .74 | 1.71 | .93 | 2.18 | 4.30 | 2.69 | 1.35 | .46 | .24 | .35 |

CAL YR 1972 TOTAL 50,595.0 MEAN 138 MAX 1,010 MIN 25 CFSM 1.09 IN 14.82
WTR YR 1973 TOTAL 62,938.7 MEAN 172 MAX 2,160 MIN 5.7 CFSM 1.35 IN 18.44

## 05545000 North Lake near Elkhorn, Wis.

LOCATION.--Lat 42°44'38", long 88°37'45", in SE¼ sec.5, T.3 N., R.16 E., Walworth County, attached to post in lake near end of road at south end of lake, 6.5 mi (10.5 km) northwest of Elkhorn.

DRAINAGE AREA.--1 $mi^2$ (3 $km^2$), approximately. Area of North Lake, 350 acres (1.42 $km^2$), approximately, at high stage.

PERIOD OF RECORD.--May 1937 to current year (fragmentary). Published as Holden Lake prior to October 1958.

GAGE.--Nonrecording gage read about once weekly or more often except during winter. Altitude of gage is 900 ft (274 m), from topographic map.

EXTREMES.--Current year: Maximum gage height observed, 13.10 ft (3.993 m) Sept. 29; minimum observed, 9.74 ft (2.969 m) Oct. 14, 21.

Period of record: Maximum gage height observed, 13.10 ft (3.993 m) Sept. 29, 1973; lake dry for parts of period July to December 1958.

REMARKS.--Lake has no surface outlet. Lake ice covered Nov. 18 to Mar. 3.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | 12.72 |
| 2 | | | | | | | | | | | | |
| 3 | | | | | | | | | | | 12.82 | |
| 4 | | 9.93 | | | | | | | | | | |
| 5 | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | |
| 7 | 9.75 | | | | | | 10.90 | | 12.45 | 12.78 | | 12.82 |
| 8 | | 9.92 | | | | | | | 12.42 | | | |
| 9 | | | | | | | | 11.91 | | | | |
| 10 | | | | | | | | | | | | |
| 11 | | 9.93 | | | | | | | | 12.82 | 12.82 | |
| 12 | | | | | | | | 12.06 | | | | |
| 13 | | | | | | | | | | | | |
| 14 | 9.74 | | | | | | 11.10 | | | 12.78 | | 12.85 |
| 15 | | | | | | | | | | | | |
| 16 | | | | | | | | | 12.50 | | | |
| 17 | | | | | | | | | | | 12.79 | |
| 18 | | | | | | | | | | | | |
| 19 | | | | | | | | 12.07 | | | | |
| 20 | | | 9.96 | | | | | | | | | |
| 21 | 9.74 | | | | | 10.84 | 11.52 | | | 12.78 | | |
| 22 | | | | | | | | | | | 12.74 | 12.92 |
| 23 | | | | | | | | | 12.65 | | | |
| 24 | | | | | | 10.79 | | | | | | |
| 25 | | | | | | | 11.63 | | | | 12.79 | |
| 26 | | | | | | | | | | | | |
| 27 | | | | | | | | 12.02 | | | | |
| 28 | 9.84 | | | | | | 11.53 | | | 12.80 | | |
| 29 | | | | | ------ | | | | | | | 13.10 |
| 30 | | | | | ------ | | | | 12.64 | | | |
| 31 | | ------ | | 10.37 | ------ | 10.79 | ------ | 12.38 | ------ | | | ------ |

## 05545550 Rockland Lake near Burlington, Wis.

LOCATION.--Lat 42°40'34", long 88°14'57", in NE¼ SE¼ sec.33, T.3 N., R.19 E., Racine County, about 0.8 mi (1.3 km) east of Burlington at Camp MacLean.

DRAINAGE AREA.--0.99 $mi^2$ (2.56 $km^2$). Area of Rockland Lake, 45 acres (182,000 $m^2$).

PERIOD OF RECORD.--January 1967 to current year.

GAGE.--Nonrecording gage. Altitude of gage is 758 ft (231 m), from topographic map.

EXTREMES.--Current year: Maximum gage height observed, 5.44 ft (1.658 m) Apr. 24; minimum observed, 4.58 ft (1.396 m) Sept. 11, 22.

Period of record: Maximum gage height observed, 5.58 ft (1.701 m) July 30, 1969; minimum gage height, 4.49 ft (1.369 m) Sept. 22, 1971.

REMARKS.--Lake ice covered Dec. 3 to Mar. 11.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | 4.95 | | | 4.95 | | | 5.12 | | 4.91 | |
| 2 | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | |
| 4 | | 5.06 | | 5.15 | | | | | | | | |
| 5 | | | | | | | | 5.21 | | | | 4.62 |
| 6 | 5.06 | | 4.93 | | | | 5.05 | | | 4.98 | | |
| 7 | | | | | | 5.10 | | | | | 4.89 | |
| 8 | | | | | 5.04 | | | | 5.10 | | | |
| 9 | | 5.04 | | | | | | | | | | |
| 10 | | | | | | | | | | | | |
| 11 | | | | | | | 5.15 | | | 4.98 | | 4.58 |
| 12 | | | | | | | | 5.17 | 5.10 | | | |
| 13 | | | 5.01 | 5.06 | | | | | | | | |
| 14 | 5.04 | | | | | | | | | | 4.82 | |
| 15 | | 5.06 | | | | | | | | | | |
| 16 | | | | | 5.00 | 5.12 | | | | | | |
| 17 | | | | | | | | | | | | |
| 18 | | | | 5.00 | | | | 5.15 | 5.10 | 4.87 | | |
| 19 | | | | | | | | | | | | |
| 20 | 5.00 | | | | | | | | | | | |
| 21 | | | 4.98 | | | 5.06 | 5.25 | | | | 4.70 | |
| 22 | | | | | | 5.06 | | | | | | 4.58 |
| 23 | | | 4.96 | | | | | | | | | |
| 24 | | | | | 4.96 | | 5.44 | | | | | |
| 25 | | 4.96 | | 5.06 | | | | 5.14 | | | | |
| 26 | | | | | | | | | 5.08 | | | |
| 27 | 5.18 | | | | | | 5.23 | | | 4.89 | | 4.64 |
| 28 | | | | | ------ | | | | | | 4.66 | |
| 29 | | | | | ------ | 5.02 | | | | | | |
| 30 | | | 5.10 | | ------ | | ------ | | ------ | | | ------ |
| 31 | | ------ | | 5.00 | ------ | | | | | | | |

## 05546500 Fox River at Wilmot, Wis.

LOCATION.--Lat 42°30'40", long 88°10'45", in SW¼ sec.30, T.1 N., R.20 E., Kenosha County, on right bank 100 ft (30 m) downstream from bridge on County Trunk C, 300 ft (90 m) upstream from Wilmot Dam, 1.0 mi (1.6 km) north of Wisconsin-Illinois State line, and 6.0 mi (9.6 km) upstream from Fox chain of lakes.

DRAINAGE AREA.--868 $mi^2$ (2,248 $km^2$).

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 735.22 ft (224.095 m) above mean sea level. Prior to Sept. 1, 1956, nonrecording gage and concrete dam.

AVERAGE DISCHARGE.--34 years, 484 $ft^3/s$ (13.71 $m^3/s$), 7.57 in/yr (192 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,530 $ft^3/s$ (185 $m^3/s$) Apr. 23, gage height, 7.65 ft (2.332 m); minimum daily, 222 $ft^3/s$ (6.29 $m^3/s$) Sept. 2.
Period of record: Maximum discharge, 7,520 $ft^3/s$ (213 $m^3/s$) Mar. 31, 1960, gage height, 9.25 ft (2.819 m), from graph based on gage readings; no flow part of day Oct. 26, 1945; minimum daily discharge, 35 $ft^3/s$ (0.99 $m^3/s$) Sept. 9, 1958.

REMARKS.--Records good except those for winter periods, which are fair. Three 6 ft (1.8 m) lift gates in Wilmot Dam were in operation during the year; discharge through gates computed by weir and orifice formulas and added to flow over dam.

REVISIONS (WATER YEARS).--WSP 1308: 1943(M), 1945(M). WRD Wis. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,650 | 1,420 | 734 | 1,900 | 1,010 | 688 | 1,040 | 3,530 | 1,620 | 650 | 640 | 233 |
| 2 | 2,470 | 1,430 | 728 | 1,710 | 1,090 | 973 | 1,280 | 3,810 | 1,540 | 608 | 648 | 222 |
| 3 | 2,250 | 1,480 | 742 | 1,620 | 1,520 | 1,310 | 1,380 | 3,920 | 1,470 | 613 | 588 | 230 |
| 4 | 2,060 | 1,500 | 620 | 1,500 | 1,590 | 1,350 | 1,400 | 3,670 | 1,490 | 590 | 505 | 272 |
| 5 | 1,900 | 1,450 | 543 | 1,400 | 1,510 | 1,390 | 1,420 | 3,170 | 1,650 | 632 | 449 | 410 |
| 6 | 1,780 | 1,380 | 536 | 1,300 | 1,360 | 1,550 | 1,400 | 2,770 | 1,760 | 590 | 394 | 530 |
| 7 | 1,670 | 1,340 | 480 | 1,200 | 1,260 | 1,700 | 1,340 | 2,500 | 1,680 | 539 | 374 | 511 |
| 8 | 1,590 | 1,290 | 470 | 1,100 | 997 | 1,900 | 1,260 | 2,410 | 1,510 | 587 | 282 | 468 |
| 9 | 1,500 | 1,260 | 450 | 980 | 889 | 2,010 | 1,250 | 2,540 | 1,310 | 522 | 373 | 438 |
| 10 | 1,380 | 1,190 | 440 | 880 | 840 | 1,960 | 1,260 | 2,620 | 1,120 | 550 | 438 | 415 |
| 11 | 1,310 | 1,160 | 430 | 800 | 800 | 1,900 | 1,310 | 2,430 | 1,000 | 556 | 421 | 394 |
| 12 | 1,310 | 1,080 | 420 | 740 | 820 | 1,880 | 1,380 | 2,190 | 919 | 491 | 394 | 373 |
| 13 | 1,220 | 1,040 | 410 | 700 | 860 | 1,840 | 1,520 | 2,020 | 904 | 430 | 362 | 342 |
| 14 | 1,090 | 1,050 | 410 | 640 | 865 | 1,850 | 1,720 | 1,880 | 834 | 414 | 327 | 317 |
| 15 | 1,020 | 1,050 | 410 | 600 | 749 | 2,130 | 2,030 | 1,770 | 769 | 419 | 317 | 272 |
| 16 | 919 | 989 | 410 | 625 | 680 | 2,320 | 2,350 | 1,670 | 982 | 399 | 294 | 250 |
| 17 | 865 | 973 | 421 | 682 | 640 | 2,300 | 2,500 | 1,570 | 1,410 | 371 | 299 | 312 |
| 18 | 828 | 966 | 433 | 934 | 600 | 2,170 | 2,440 | 1,450 | 1,740 | 371 | 303 | 394 |
| 19 | 798 | 950 | 427 | 1,160 | 580 | 2,000 | 2,370 | 1,320 | 1,760 | 361 | 303 | 421 |
| 20 | 749 | 927 | 427 | 1,270 | 600 | 1,790 | 2,150 | 1,300 | 1,540 | 366 | 294 | 400 |
| 21 | 791 | 911 | 450 | 1,230 | 620 | 1,630 | 2,280 | 1,250 | 1,310 | 399 | 332 | 404 |
| 22 | 1,090 | 904 | 456 | 1,200 | 620 | 1,520 | 4,530 | 1,240 | 1,090 | 409 | 272 | 410 |
| 23 | 1,660 | 889 | 456 | 1,430 | 620 | 1,410 | 6,430 | 1,270 | 997 | 419 | 250 | 427 |
| 24 | 2,160 | 850 | 468 | 1,360 | 620 | 1,310 | 6,140 | 1,290 | 966 | 419 | 255 | 404 |
| 25 | 2,290 | 820 | 468 | 1,230 | 600 | 1,250 | 5,510 | 1,270 | 919 | 434 | 263 | 410 |
| 26 | 2,170 | 798 | 473 | 1,160 | 560 | 1,190 | 4,960 | 1,310 | 828 | 439 | 285 | 450 |
| 27 | 1,950 | 828 | 473 | 1,120 | 560 | 1,130 | 4,570 | 1,320 | 813 | 449 | 299 | 456 |
| 28 | 1,760 | 828 | 486 | 1,000 | 567 | 1,040 | 4,170 | 1,510 | 777 | 455 | 294 | 542 |
| 29 | 1,600 | 728 | 492 | 880 | ------ | 989 | 3,750 | 1,800 | 749 | 419 | 285 | 832 |
| 30 | 1,520 | 722 | 892 | 840 | ------ | 934 | 3,500 | 1,850 | 707 | 385 | 263 | 920 |
| 31 | 1,450 | ------ | 1,540 | 800 | ------ | 966 | ------ | 1,760 | ------ | 455 | 247 | ------ |
| TOTAL | 47,800 | 32,203 | 16,595 | 33,991 | 24,027 | 48,380 | 78,640 | 64,410 | 36,164 | 14,661 | 11,050 | 12,459 |
| MEAN | 1,542 | 1,073 | 535 | 1,096 | 858 | 1,561 | 2,621 | 2,078 | 1,205 | 473 | 356 | 415 |
| MAX | 2,650 | 1,500 | 1,540 | 1,900 | 1,590 | 2,320 | 6,430 | 3,920 | 1,760 | 650 | 648 | 920 |
| MIN | 749 | 722 | 410 | 600 | 560 | 688 | 1,040 | 1,240 | 707 | 361 | 247 | 222 |
| CFSM | 1.78 | 1.24 | .62 | 1.26 | .99 | 1.80 | 3.02 | 2.39 | 1.39 | .54 | .41 | .48 |
| IN. | 2.05 | 1.38 | .71 | 1.46 | 1.03 | 2.07 | 3.37 | 2.76 | 1.55 | .63 | .47 | .53 |

CAL YR 1972 TOTAL 324,287 MEAN 886 MAX 3,250 MIN 170 CFSM 1.02 IN 13.90
WTR YR 1973 TOTAL 420,380 MEAN 1,152 MAX 6,430 MIN 222 CFSM 1.33 IN 18.02

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

## Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site. Measurements have been made at numerous other stations throughout the State since 1961. These measurements are published in preceding Water Resources Data for Wisconsin publications.

Discharge measurements made at low-flow partial-record stations during water year 1973

| Station No. | Station name | Location | Drainage area ($mi^2$) | Period of record | Measurements | |
|---|---|---|---|---|---|---|
| | | | | | Date | Discharge ($ft^3/s$) |
| | | **Streams tributary to Lake Superior** | | | | |
| 04024350 | Black River near Chaffey, Wis. | S½ sec.19, T.46 N., R.14 W., at bridge on State Highway 35, 4.0 mi (6.4 km) southeast of Patzau. | d53.6 | 1964<br>1967<br>1969-73 | 5-23-73<br>9-18-73 | 50.6<br>2.55 |
| 04025000 | Amnicon River near Poplar, Wis. | On common boundary of secs.29 and 32, T.48 N., R.12 W., at bridge on U.S. Highway 2, 4.5 mi (7.2 km) northwest of Poplar. | 112 | 1964<br>1967<br>1969-73 | 5-23-73<br>9-18-73 | 98.3<br>14.0 |
| 04025100 | Middle River near Poplar, Wis. | SE¼ sec.12, T.48 N., R.12 W., at bridge on State Highway 13, 4.6 mi (7.4 km) north of Poplar. | 51.6 | 1964<br>1967<br>1969-73 | 5-23-73<br>9-18-73 | 25.7<br>9.26 |
| 04026030 | Reefer Creek near Port Wing, Wis. | NW¼ sec.4, T.49 N., R.9 W., at bridge on State Highway 13, 5.8 mi (9.3 km) southwest of Port Wing. | d10.9 | 1964<br>1967<br>1969-73 | 5-23-73<br>9-18-73 | 4.38<br>4.44 |
| 04026120 | Flag River at Port Wing, Wis. | Center of sec.28, T.50 N., R.8 W., at bridge on State Highway 13, just northeast of Port Wing. | d33.9 | 1964<br>1967<br>1969-73 | 5-23-73<br>9-18-73 | 35.0<br>30.0 |
| 04026190 | Sand River near Red Cliff, Wis. | NE¼ sec.14, T.51 N., R.5 W., at bridge on State Highway 13, 8.5 mi (13.7 km) northwest of Red Cliff. | 28.2 | 1964<br>1967<br>1969-73 | 5-22-73<br>9-18-73 | 7.19<br>5.36 |
| 04026350 | North Fish Creek near Ashland, Wis. | SW¼ sec.2, T.47 N., R.5 W., at bridge on U.S. Highway 2, 3.0 mi (4.8 km) west of Ashland. | d88.1 | 1967<br>1969-73 | 5-22-73<br>9-19-73 | 98.8<br>79.6 |
| 04026500 | Bad River at Mellen, Wis. | NW¼ sec.6, T.44 N., R.2 W., at State Highway 13 at Mellen. | d105 | 1948-55#<br>1969-73 | 5-22-73<br>9-19-73 | 96.1<br>16.2 |
| 04026550 | Tyler Forks River near Upson, Wis. | SE¼ sec.28, T.45 N., R.1 W., at culvert on State Highway 77, 4.3 mi (6.9 km) southwest of Upson. | 41.3 | 1967<br>1969-73 | 5-21-73<br>9-19-73 | 39.0<br>6.12 |
| 04026600 | Marengo River near Marengo, Wis. | NW¼ sec.36, T.46 N., R.4 W., at bridge on State Highway 13, 0.2 mi (0.3 km) north of Marengo. | a101 | 1967<br>1969-73 | 5-22-73<br>9-19-73 | 75.0<br>36.6 |
| 04026650 | Trout Brook near Highbridge, Wis. | SW¼ sec.8, T.45 N., R.3 W., at culvert on State Highway 13, 1.9 mi (3.0 km) west of Highbridge. | d8.60 | 1967<br>1969-73 | 5-22-73<br>9-19-73 | 11.2<br>2.46 |
| 04026900 | Potato River near Gurney, Wis. | SW¼ sec.16, T.46 N., R.1 W., at bridge on State Highway 169, 0.7 mi (1.1 km) south of Gurney. | a92.7 | 1967<br>1969-73 | 5-22-73<br>9-19-73 | 86.5<br>10.3 |
| 04027900 | Layman Creek near Hurley, Wis. | NE¼ sec.6, T.44 N., R.3 E., at bridge on U.S. Highway 51, 8.0 mi (12.9 km) southeast of Montreal. | a17.8 | 1967<br>1969-73 | 6-14-73<br>9-19-73 | 13.8<br>.90 |

a Approximately.
d Revised.
# Operated as a continuous-record gaging station.

Discharge measurements made at low-flow partial-record stations during water year 1973

| Station No. | Station name | Location | Drainage area ($mi^2$) | Period of record | Measurements | |
|---|---|---|---|---|---|---|
| | | | | | Date | Discharge ($ft^3/s$) |
| | | Streams tributary to Lake Michigan | | | | |
| 04059800 | Brule Creek at Alvin, Wis. | NW¼ sec.34, T.41 N., R.13 E., at bridge on Forest Service Road 2458, 1.6 mi (2.6 km) northwest of Alvin. | 37 | 1969-73 | 6-27-73<br>8-29-73 | 35.8<br>22.3 |
| 04060990 | Montagne Creek near Florence, Wis. | SE¼ SW¼ sec.11, T.40 N., R.17 E., at town road, 4.8 mi (7.7 km) northwest of Florence. | 14.4 | 1969-70<br>1972-73 | 6-27-73<br>8-29-73 | 16.4<br>6.95 |
| 04063600 | Pine River near Three Lakes, Wis. | NW¼ sec.30, T.39 N., R.13 E., at bridge on U.S. Forest Service Road 2182, 12.4 mi (20.0 km) northeast of Three Lakes. | 16.2 | 1966<br>1969-73 | 6-27-73<br>8-30-73 | 15.2<br>.93 |
| 04063690 | South Branch Popple River near Fence, Wis. | SW¼ NE¼ sec.25, T.38 N., R.15 E., at U.S. Forest Service Road 2159, 6.5 mi (10.4 km) west of Fence. | 10.2 | 1969<br>1972-73 | 6-27-73<br>8-29--3 | 15.0<br>7.91 |
| 04065970 | South Branch Pemebowon River near Pembine, Wis. | SE¼ SE¼ sec.19, T.37 N., R.20 E., at County Trunk O, 2.8 mi (4.5 km) northwest of Pembine. | 26.6 | 1969-70<br>1972-73 | 6-27-73<br>8-29-73 | 19.8<br>9.23 |
| 04066250 | South Branch Pike River near Dunbar, Wis. | NE¼ SE¼ sec.36, T.36 N., R.18 E., at town road, 6.9 mi (11.1 km) south of Dunbar. | 72.4 | 1969-70<br>1972-73 | 6-27-73<br>8-29-73 | 86.5<br>42.3 |
| 04067700 | North Branch Peshtigo River near Argonne, Wis. | NW¼ SW¼ sec.24, T.37 N., R.13 E., at U.S. Forest Service Road 2387, 2.9 mi (4.7 km) northeast of Argonne. | 32.4 | 1969<br>1972-73 | 6-26-73<br>8-30-73 | 22.0<br>11.2 |
| 04067750 | Camp Eight Creek near Cavour, Wis. | NE¼ NE¼ sec.36, T.37 N., R.14 E., at County Trunk G, 2.3 mi (3.7 km) west of Cavour. | 15.0 | 1969<br>1972-73 | 6-26-73<br>8-30-73 | 8.63<br>15.4 |
| 04067900 | Rat River near Wabeno, Wis. | SE¼ sec.28, T.35 N., R.16 E., at bridge on U.S. Forest Service Road 2134, 8.0 mi (12.9 km) northeast of Wabeno. | 82.6 | 1969-70<br>1972-73 | 6-26-73<br>8-30-73 | 112<br>118 |
| 04067990 | Eagle Creek near Athelstene, Wis. | On common boundary of secs.24 and 25, T.34 N., R.18 E., at bridge on County Trunk C, 4.5 mi (7.2 km) southwest of Athelstene. | 38.6 | 1969-70<br>1972-73 | 8-30-73 | 19.2 |
| 04068100 | North Fork Thunder River near Lakewood, Wis. | NE¼ sec.23, T.33 N., R.17 E., at culvert on U.S. Forest Service Road 2101, 9.7 mi (15.6 km) northeast of Lakewood. | 20.0 | 1969-70<br>1972-73 | 8-30-73 | 10.1 |
| 04069290 | Middle Inlet near Middle Inlet, Wis. | On common boundary of secs.30 and 31, T.33 N., R.21 E., at bridge on County Trunk X, 2.7 mi (4.3 km) east of Middle Inlet. | 56.9 | 1968-70<br>1973 | 8-29-73 | 41.1 |
| 04069350 | South Branch Beaver Creek near Beaver, Wis. | SW¼ NE¼ sec.28, T.31 N., R.20 E., at U.S. Highway 141, 0.5 mi (0.8 km) south of Beaver. | 53.9 | 1969<br>1972-73 | 8-28-73 | 19.5 |
| 04069390 | Little Peshtigo River near Coleman, Wis. | SE¼ SW¼ sec.18, T.30 N., R.21 E., at County Trunk B, 1.9 mi (3.0 km) east of Coleman. | 49.9 | 1969<br>1972-73 | 8-28-73 | 12.9 |
| 04069480 | Trout Creek near Peshtigo, Wis. | On common boundary of secs.23 and 24, T.30 N., R.22 E., at bridge, 1.5 mi (2.4 km) west of Peshtigo. | 24.3 | 1969-73 | 8-28-73 | .16 |
| 04070100 | North Branch Oconto River near Mountain, Wis. | On common boundary of secs.23 and 26, T.31 N., R.16 E., at bridge on U.S. Forest Service Road 2106, 3.2 mi (5.1 km) north of Mountain. | 178 | 1969-70<br>1972-73 | 6-26-73<br>8-30-73 | 279<br>168 |
| 04070300 | Waupee River near Mountain, Wis. | SW¼ sec.30, T.31 N., R.17 E., at bridge on State Highway 32, 4.2 mi (6.8 km) southeast of Mountain. | 47.9 | 1969-70<br>1972-73 | 6-25-73<br>8-30-73 | 77.8<br>23.9 |
| 04070600 | Hills Pond Creek near Langlade, Wis. | SE¼ sec.4, T.31 N., R.15 E., at bridge on State Highway 64, 5.5 mi (8.8 km) east of Langlade. | 9.15 | 1969-70<br>1972-73 | 6-26-73<br>8-30-73 | 17.5<br>8.60 |

Discharge measurements made at low-flow partial-record stations during water year 1973

| Station No. | Station name | Location | Drainage area ($mi^2$) | Period of record | Measurements | |
|---|---|---|---|---|---|---|
| | | | | | Date | Discharge ($ft^3/s$) |
| | | Streams tributary to Lake Michigan--Continued | | | | |
| 04070800 | Pecore Creek near Hayes, Wis. | NE¼ sec.8, T.29 N., R.17 E., at culvert on country road, 1.2 mi (1.9 km) northwest of Hayes. | 30.4 | 1969-70<br>1972-73 | 7-10-73<br>8-14-73 | 24.3<br>19.6 |
| 04071730 | Kelly Brook near Lena, Wis. | SE¼ NW¼ sec.22, T.29 N., R.20 E., at U.S. Highway 141, 1.5 mi (2.4 km) north of Lena. | 79.6 | 1969<br>1972-73 | 6-25-73<br>8-28-73 | 84.4<br>10.5 |
| *04071800 | Pensaukee River near Pulaski, Wis. | NE¼ sec.1, T.26 N., R.18 E., at bridge on State Highway 32, 6.1 mi (9.8 km) north of Pulaski. | 43.2 | 1961<br>1963-67<br>1969<br>1972-73 | 8-02-73 | 1.88 |
| 04072000 | Suamico River at Suamico, Wis. | NW¼ sec.22, T.25 N., R.20 E., at bridge on County Trunk B, 0.5 mi (0.8 km) west of Suamico, 7.5 mi (12.1 km) north of Green Bay and 3.0 mi (5.0 km) upstream from mouth. | 57.0 | 1969<br>1972-73 | 10-17-72<br>8-03-73 | 8.45<br>4.96 |
| 04072050 | Duck Creek near Oneida, Wis. | SE¼ sec.17, T.23 N., R.19 E., at bridge on country road, 2.9 mi (4.7 km) southwest of Oneida. | 92.2 | 1968-70<br>1972-73 | 8-02-73 | 1.24 |
| 04073900 | Eightmile Creek at Fish, Wis. | SW¼ sec.11, T.17 N., R.15 E., at bridge on County Trunk FF at Fish. | 22.8 | 1969-70<br>1973 | 7-19-73<br>8-21-73 | .12<br>.01 est. |
| 04076000 | West Branch Wolf River at Neopit, Wis. | NE¼ sec.20, T.29 N., R.14 E., in Neopit. | 108 | 1969-70<br>1972-73 | 8-02-72<br>7-10-73<br>8-14-73 | 113<br>143<br>122 |
| 04076400 | Little West Branch near Neopit, Wis. | NW¼ sec.11, T.29 N., R.14 E., at culvert on County Trunk M, 3.8 mi (6.1 km) northeast of Neopit. | 21.1 | 1969-70<br>1972-73 | 7-10-73<br>8-14-73 | 15.6<br>17.6 |
| 04078050 | Shioc River at Nichols, Wis. | SW¼ sec.7, T.24 N., R.17 E., at bridge on State Highway 156, 0.8 mi (1.3 km) west of Nichols. | 92.0 | 1968-70<br>1972-73 | 8-01-72<br>7-10-73<br>8-14-73 | 2.62<br>7.66<br>5.57 |
| 04078055 | Black Creek at Black Creek, Wis. | NE¼ sec.8, T.23 N., R.17 E., at bridge on State Highway 47, 0.3 mi (0.5 km) north of Black Creek. | 55.9 | 1969-73 | 7-10-73<br>8-14-73 | 2.78<br>.70 |
| 04078080 | Bear Creek at Stephensville, Wis. | NE¼ sec.20, T.22 N., R.16 E., at bridge on State Highway 76, at Stephensville. | 59.4 | 1969-73 | 7-10-73<br>8-13-73 | 6.55<br>2.33 |
| 04078490 | Mill Creek near Pella, Wis. | NW¼ sec.12, T.26 N., R.14 E., at bridge on country road, 2.8 mi (4.5 km) east of Pella. | 23.1 | 1969-70<br>1972-73 | 7-11-73<br>8-15-73 | 16.7<br>13.3 |
| 04078600 | North Branch Pigeon River near Marion, Wis. | NE¼ sec.5, T.25 N., R.13 E., at farm bridge, 2.8 mi (4.5 km) west of Marion. | 10.8 | 1969-73 | 7-11-73<br>8-15-73 | 6.27<br>4.85 |
| 04078800 | Bear Creek near Sugar Bush, Wis. | SE¼ sec.5, T.23 N., R.15 E., at bridge on country road, 1.9 mi (3.0 km) northeast of Sugar Bush. | 26.3 | 1969-70<br>1972-73 | 7-12-73<br>8-15-73 | 1.61<br>.35 |
| *04081000 | Waupaca River near Waupaca, Wis. | On north line of sec.1, T.21 N., R.12 E., on right bank 10 ft (3.0 m) downstream from highway bridge, 4.0 mi (6.4 km) upstream from Weyauwega Lake dam, 4.5 mi (7.2 km) southeast of Waupaca. | 272 | 1962-64<br>b1964-66<br>c1966-70<br>1972-73 | 7-12-73<br>8-15-73 | 284<br>265 |
| 04081800 | Daggets Creek near Butte des Morts, Wis. | SW¼ sec.20, T.19 N., R.16 E., at bridge on country road, 1.5 mi (2.4 km) east of Butte des Morts. | 10.3 | 1969-70<br>1973 | 8-21-73 | .76 |
| 04085070 | Ashwaubenon Creek near De Pere, Wis. | On common boundary of land grants 28 and 29, T.23 N., R.20 E., at culverts on County Trunk G, 0.5 mi (0.8 km) west of De Pere. | 25.2 | 1969-70<br>1972-73 | 8-02-73 | .38 |

* Also a crest-stage station.
b Operated as a seasonal continuous-record gaging station.
c Operated as a seasonal continuous-record gaging station without records being published.

Discharge measurements made at low-flow partial-record stations during water year 1973

| Station No. | Station name | Location | Drainage area ($mi^2$) | Period of record | Measurements | |
|---|---|---|---|---|---|---|
| | | | | | Date | Discharge ($ft^3/s$) |
| | | **Streams tributary to Lake Michigan--Continued** | | | | |
| 04085110 | East River near De Pere, Wis. | SE¼ sec.3, T.22 N., R.20 E., at bridge on State Highway 32, 2.5 mi (4.0 km) south of De Pere. | 58.4 | 1969-70<br>1972-73 | 8-02-73 | 1.54 |
| 04085170 | Hibbard Creek at Jacksonport, Wis. | SE¼ sec.14, T.29 N., R.27 E., at culvert on State Highway 57, 0.8 mi (1.3 km) northeast of Jacksonport. | 22.5 | 1969-70<br>1972-73 | 8-01-73 | 3.75 |
| 04085180 | Stoney Creek near Algoma, Wis. | NW¼ sec.5, T.25 N., R.26 E., at bridge on County Trunk U, 5.5 mi (8.8 km) northeast of Algoma. | 24.8 | 1969-70<br>1972-73 | 8-01-73 | 2.92 |
| 04085190 | Silver Creek near Algoma, Wis. | NE¼ sec.19, T.25 N., R.25 E., at bridge on County Trunk D, 3.5 mi (5.6 km) northwest of Algoma. | 58.0 | 1969-70<br>1972-73 | 8-01-73 | 1.11 |
| 04085280 | East Twin River at Mishicot, Wis. | NW¼ sec.4, T.20 N., R.24 E., at bridge on State Highway 147, at Mishicot. | 109 | 1969-70<br>1972-73 | 10-11-72<br>7-31-73 | 37.6<br>15.8 |
| 04085330 | West Twin River near Francis Creek, Wis. | SW¼ sec.7, T.20 N., R.24 E., at bridge on County Trunk Q, 2.3 mi (3.7 km) northeast of Francis. | 146 | 1969-70<br>1972-73 | 7-31-73 | 21.5 |
| 04085390 | South Branch Manitowoc River near Chilton, Wis. | NW¼ sec.17, T.18 N., R.20 E., at bridge on country road, 1.1 mi (1.8 km) northeast of Chilton. | 75.2 | 1969-73 | 10-10-72<br>7-31-73 | 54.5<br>5.19 |
| *04085400 | Killsnake River near Chilton, Wis. | E½ sec.6, T.18 N., R.20 E., at bridge on country road, 2.4 mi (3.9 km) northeast of Chilton. | 29.5 | 1963-67<br>1969-73 | 7-31-73 | 3.20 |
| 04085410 | Mud Creek near Reedsville, Wis. | SW¼ sec.2, T.19 N., R.21 E., at bridge on country road, 1.0 mi (1.6 km) south of Reedsville. | 38.7 | 1969-70<br>1972-73 | 8-01-73 | 1.85 |
| 04085420 | Branch River near Cato, Wis. | SE¼ sec.22, T.20 N., R.22 E., at bridge on country road, 3.3 mi (5.3 km) north of Cato. | 80.7 | 1969-70<br>1972-73 | 8-01-73 | 18.1 |
| 04085460 | Pigeon River near Millersville, Wis. | SW¼ sec.6, T.15 N., R.23 E., at bridge on country road, 2.1 mi (3.4 km) southeast of Millersville. | 66.1 | 1969-70<br>1972-73 | 7-12-73<br>8-21-73 | 5.69<br>32.6 |
| 04085800 | Onion River near Waldo, Wis. | On common boundary of secs.10 and 11, T.14 N., R.21 E., at bridge on County Trunk AC, 1.4 mi (2.2 km) northwest of Waldo. | 18.2 | 1969-70<br>1972-73 | 7-11-73<br>8-20-73 | 10.7<br>14.0 |
| 04087020 | Menomonee River at Menomonee Falls, Wis. | SE¼ sec.33, T.9 N., R.20 E., at culvert on County Trunk Q, 1.2 mi (1.9 km) northwest of Menomonee Falls. | 32.0 | 1962-67<br>1973 | 7-18-73 | 4.21 |
| 04087050 | Little Menomonee River near Freistadt, Wis. | On common boundary sec.29 and 32, T.9 N., R.21 E., at bridge on Donges Bay Road, 2.0 mi (3.0 km) south of Freistadt. | 7.96 | 1961-67<br>1973 | 7-18-73 | .60 |
| | | **St. Croix River Basin** | | | | |
| 05331590 | Lower Ox Creek near Gordon, Wis. | NE¼ SE¼ sec.16, T.44 N., R.11 W., at town road, 4.6 mi (7.4 km) northeast of Gordon. | 99.4 | 1969-73 | 5-22-73<br>9-20-73 | 24.4<br>21.8 |
| 05331700 | Moose River near Solon Springs, Wis. | On common boundary of secs.14 and 23, T.44 N., R.13 W., at bridge on County Trunk M, 7.8 mi (12.6 km) southwest of Solon Springs. | 49.9 | 1964<br>1967<br>1969-73 | 9-20-73 | 6.89 |
| 05331900 | Chippanazie Creek at Stanberry, Wis. | NW¼ sec.33, T.41 N., R.10 W., at culvert on U.S. Highway 63, 0.8 mi (1.3 km) southwest of Stanberry. | a33.8 | 1964<br>1967<br>1969-73 | 9-20-73 | 13.2 |

* Also a crest-stage station.
a Approximately.

Discharge measurements made at low-flow partial-record stations during water year 1973

| Station No. | Station name | Location | Drainage area ($mi^2$) | Period of record | Measurements | |
|---|---|---|---|---|---|---|
| | | | | | Date | Discharge ($ft^3/s$) |
| | | **St. Croix River Basin--Continued** | | | | |
| 05331950 | Bean Brook near Spring Brook, Wis. | NE¼ sec.1, T.39 N., R.11 W., at culvert on County Trunk M, 3.5 mi (5.6 km) southeast of Spring Brook. | a38.1 | 1964<br>1967<br>1969-73 | 9-20-73 | 35.0 |
| 05332700 | Stuntz Brook near Minong, Wis. | SW¼ sec.23, T.41 N., R.13 W., at culvert on County Trunk F, 8.8 mi (14.2 km) southwest of Minong. | 18.2 | 1964<br>1967<br>1969-73 | 5-22-73<br>9-20-73 | 7.19<br>3.07 |
| 05333060 | Ounce River near Gordon, Wis. | SW¼ sec.30, T.43 N., R.10 W., at bridge on country road, 7.8 mi (12.6 km) southeast of Gordon. | a41.7 | 1964<br>1967<br>1969-73 | 5-22-73<br>9-20-73 | 29.3<br>17.1 |
| 05333080 | Frog Creek near Minong, Wis. | NW¼ sec.20, T.42 N., R.11 W., at bridge on country road, 2.4 mi (3.9 km) northeast of Minong. | a31.7 | 1964<br>1967<br>1969-73 | 5-22-73<br>9-20-73 | 20.0<br>5.65 |
| *05333100 | Little Frog Creek near Minong, Wis. | NW¼ sec.29, T.42 N., R.11 W., at culvert on country road, 2.5 mi (4.0 km) east of Minong. | 13.6 | 1961<br>1963-73 | 5-22-73<br>9-20-73 | 6.24<br>.95 |
| 05333510 | Chases Brook near Danbury, Wis. | NE¼ sec.32, T.42 N., R.15 W., at bridge on country road, 7.0 mi (11.3 km) northeast of Danbury. | a38.0 | 1964<br>1967<br>1969-73 | 9-25-73 | 6.76 |
| 05334500 | Yellow River at Webster, Wis. | On common boundary of secs.4 and 5, T.39 N., R.16 W., at bridge on State Highway 35, 1.3 mi (2.1 km) north of Webster. | 228 | 1914ƒ<br>1964<br>1967<br>1969-73 | 5-24-73<br>9-25-73 | 232<br>258 |
| 05338900 | Wood River near Siren, Wis. | On common boundary of secs.27 and 28, T.38 N., R.17 W., at bridge on country road, 4.8 mi (7.7 km) southwest of Siren. | 26.8 | 1964<br>1967<br>1969-73 | 5-23-73<br>9-25-73 | 5.96<br>1.94 |
| 05338950 | North Fork Wood River near Grantsburg, Wis. | E½ sec.8, T.38 N., R.18 W., at bridge on country road, 3.5 mi (5.6 km) northeast of Grantsburg. | 67.3 | 1964<br>1967<br>1969-73 | 5-23-73<br>9-25-73 | 24.5<br>9.67 |
| 05340400 | Wolf Creek near St. Croix Falls, Wis. | SE¼ sec.33, T.36 N., R.19 W., at bridge on County Trunk G, 11 mi (17.7 km) northwest of St. Croix Falls. | 29.3 | 1964<br>1967<br>1969-73 | 5-24-73<br>9-25-73 | 20.9<br>5.79 |
| | | **Chippewa River Basin** | | | | |
| 05355530 | East Fork Chippewa River near Glidden, Wis. | On common boundary of secs.12 and 13, T.42 N., R.2 W., at bridge on State Highway 13, 0.7 mi (1.1 km) southeast of Glidden. | a94.6 | 1967<br>1970-73 | 6-18-73 | 59.2 |
| 05357350 | Lost Creek near Powell, Wis. | SE¼ sec.27, T.42 N., R.4 E., at bridge on State Highway 47, 1.0 mi (1.6 km) west of Powell. | 14.5 | 1967<br>1969<br>1972-73 | 8-07-73 | 7.50 |
| | | **Trempealeau River Basin** | | | | |
| 05379200 | Trempealeau River at Taylor, Wis. | East boundary sec.5, T.21 N., R.6 W., at bridge on County Trunk P, 0.4 mi (0.6 km) north of Taylor. | 110 | 1964<br>1966-70<br>1972-73 | 8-10-72<br>6-27-73<br>9-12-73 | 52.8<br>124<br>74.5 |
| | | **Wisconsin River Basin** | | | | |
| 05390140 | Muskrat Creek at Conover, Wis. | SE¼ SW¼ sec.4, T.41 N., R.8 E., at U.S. Highway 45, at Conover. | 9.95 | 1969-70<br>1972-73 | 5-14-73<br>6-20-73<br>8-29-73 | 12.1<br>5.65<br>2.99 |
| 05390180 | Wisconsin River at Conover, Wis. | NE¼ sec.8, T.41 N., R.10 E., at bridge on County Trunk K, 0.5 mi (0.8 km) downstream from Pioneer Creek and 0.6 mi (1.0 km) southwest of Conover. | 176 | 1967-71ƒ<br>1973 | 6-20-73<br>8-29-73 | 174<br>115 |

* Also a crest-stage station.
a Approximately.
ƒ Operated as a continuous-record gaging station.

Discharge measurements made at low-flow partial-record stations during water year 1973

| Station No. | Station name | Location | Drainage area ($mi^2$) | Period of record | Measurements | |
|---|---|---|---|---|---|---|
| | | | | | Date | Discharge ($ft^3/s$) |
| | | **Wisconsin River Basin--Continued** | | | | |
| 05390450 | Deerskin River near Eagle River, Wis. | NW¼ SW¼ sec.25, T.41 N., R.11 E., at U.S. Forest Service Road 2178, 10.5 mi (16.9 km) northeast of Eagle River. | 32.5 | 1969-70<br>1972-73 | 6-20-73<br>8-29-73 | 20.6<br>16.0 |
| 05391200 | Monico Creek near Monico, Wis. | SW¼ NW¼ sec.29, T.36 N., R.11 E., at U.S. Highway 45, 0.3 mi (0.5 km) northeast of Monico. | 19.8 | 1969-70<br>1972-73 | 6-21-73<br>8-30-73 | 5.87<br>4.51 |
| 05391250 | Gudegast Creek near Rhinelander, Wis. | NE¼ SE¼ sec.9, T.37 N., R.10 E., at town road, 9.5 mi (15.3 km) northeast of Rhinelander. | 11.3 | 1969-70<br>1972-73 | 6-21-73<br>8-30-73 | 11.6<br>7.92 |
| 05391900 | Noisy Creek near Rhinelander, Wis. | SW¼ SW¼ sec.36, T.36 N., R.8 E., at State Highway 17, 6.0 mi (9.6 km) southwest of Rhinelander. | 36.8 | 1969-70<br>1972-73 | 6-21-73<br>8-30-73 | 24.0<br>19.5 |
| 05392290 | Willow River near Hazelhurst, Wis. | SE¼ sec.19, T.38 N., R.4 E., at culvert on country road, 14.9 mi (24.0 km) west of Hazelhurst. | 7.97 | 1969-73 | 8-29-73 | 1.86 |
| 05392320 | Rocky Run Creek near Goodnow, Wis. | SE¼ sec.17, T.37 N., R.6 E., on country road, 4.3 mi (6.9 km) west of Goodnow. | 20.3 | 1969-73 | 6-20-73<br>8-29-73 | 29.7<br>25.3 |
| 05392450 | Little Rice River near Bradley, Wis. | NE¼ sec.23, T.36 N., R.5 E., at culvert on Kelly Fire Lane, 5.4 mi (8.7 km) northwest of Bradley. | 25.9 | 1969-73 | 6-20-73<br>8-28-73 | 19.4<br>23.2 |
| 05393200 | Somo River[e] near Tripoli, Wis. | NW¼ sec.10, T.35 N., R.4 E., at bridge on County Trunk T, 1.8 mi (2.9 km) southeast of Tripoli. | a44.1 | 1967<br>1969-73 | 6-20-73<br>8-28-73 | 10.6<br>3.95 |
| 05393630 | Little Pine Creek near Tomahawk, Wis. | On common boundary of secs.31 and 32, T.34 N., R.7 E., at culverts on County Trunk V, 6.5 mi (10.4 km) southeast of Tomahawk. | 21.1 | 1967<br>1969-73 | 6-21-73<br>8-28-73 | 13.2<br>8.68 |
| *05404200 | Narrows Creek at Loganville, Wis. | SE¼ sec.8, T.11 N., R.4 E., at bridge on State Highway 23 and 154, and 0.25 mi (0.40 km) north of Loganville. | 40.0 | 1961<br>1963<br>1964-66f<br>c1967<br>1973 | 6-13-73<br>7-24-73 | 23.2<br>14.8 |
| 05406820 | Pine River near Richland Center, Wis. | SE¼ sec.27, T.10 N., R.1 E., at bridge on County Trunk O, 2.5 mi (4.0 km) southeast of Richland Center. | 198 | 1963<br>1966-70<br>1972-73 | 7 6-72<br>10-18-72<br>6-27-73<br>8-22-73 | 74.3<br>110<br>189<br>129 |
| | | **GRANT RIVER BASIN** | | | | |
| *05413400 | Pigeon Creek near Lancaster, Wis. | SW¼ sec.15, T.4 N., R.3 W., at culvert on country road, 2.0 mi (3.2 km) south of Lancaster. | 6.81 | 1961<br>1963-64<br>1964-66f<br>1967-70<br>1972-73 | 6-21-72<br>8-31-72<br>8- 2-73 | 2.66<br>4.71<br>4.91 |
| | | **ROCK RIVER BASIN** | | | | |
| 05432800 | Dodge Branch at Hollandale, Wis. | NE¼ sec.30, T.5 N., R.5 E., at bridge on State Highway 191, in Hollandale. | 66.1 | 1963<br>1966-70<br>1972-73 | 6- 2-72<br>8-10-72<br>7-31-73 | 29.3<br>21.7<br>54.9 |

* Also a crest-stage station.
a Approximately.
c Operated as a seasonal continuous-record gaging station without records being published.
e Formerly published as Big Somo River.
f Operated as a continuous-record gaging station.

## Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

| Station No. | Station name | Location | Drainage area ($mi^2$) | Period of record | Annual maximum | | |
|---|---|---|---|---|---|---|---|
| | | | | | Date | Gage height (ft) | Discharge ($ft^3/s$) |
| | | **Streams tributary to Lake Superior** | | | | | |
| 04024400 | Stony Brook near Superior, Wis. | SE¼ sec.4, T.47 N., R.14 W., at box culvert on State Highway 35, 12.5 mi (20.1 km) south of toll bridge on U.S. Highways 2 and 35 at St. Louis River in Superior. | 2.20 | 1959-73 | 3-12-73 | 13.14 | 115 |
| 04025200 | Pearson Creek near Maple, Wis. | Common boundary of secs.11 and 14, T.48 N., R.11 W., at box culvert on State Highway 13, 4 mi (6.4 km) north of Maple. | 4.01 | 1957-73 | 8- 8-73 | 12.29 | 230 |
| 04026200 | Sand River tributary near Red Cliff, Wis. | NE¼ sec.14, T.51 N., R.5 W., at box culvert on State Highway 13, 8 mi (12.9 km) northwest of Red Cliff. | 1.14 | 1959-73 | 8- 7-73 | 10.49 | 65 |
| *04026300 | Sioux River near Washburn, Wis. | NE¼ sec.35, T.49 N., R.5 W., on County Trunk C, 2.5 mi (4.0 km) west of Washburn. | d35.2 | 1959-65 1966≠ 1967-73 | 8- 8-73 | 11.35 | 340 |
| *04026400 | Spillerberg Creek near Cayuga, Wis. | NW¼ sec.21, T.43 N., R.2 W., at concrete culvert pipe on State Highway 13, 4.2 mi (6.8 km) southeast of Cayuga. | 6.18 | 1958-73 | 3-11-73 | 11.29 | 50 |
| 04026700 | Trout Brook tributary near Marengo, Wis. | NE¼ sec.7, T.45 N., R.3 W., at box culvert on State Highway 13, 2.6 mi (4.2 km) southeast of Marengo. | .77 | 1960-73 | 5- 2-73 | 10.72 | 95 |
| 04026850 | Apple Creek near Upson, Wis. | SE¼ sec.30, T.45 N., R.1 E., at 2-barrel corrugated culvert on graveled O'Brien Lake Road, 1.5 mi (2.4 km) south of Upson. | 5.39 | 1970-73 | 5- 2-73 | 11.33 | ≠ |
| *04027200 | Pearl Creek at Grandview, Wis. | NE¼ sec.22, T.45 N., R.6 W., at box culvert on U.S. Highway 63, 0.8 mi (1.3 km) east of Grandview. | e16.9 | 1960-73 | 3-11-73 | 12.20 | 210 |
| *04029700 | Boomer Creek near Saxon, Wis. | N½ sec.3, T.46 N., R.1 E., at concrete culvert pipe on U.S. Highway 2, 3 mi (4.8 km) east of Saxon. | 5.94 | 1958-73 | | i | ≠ |
| | | **Streams tributary to Lake Michigan** | | | | | |
| *04059900 | Allen Creek tributary near Alvin, Wis. | North boundary sec.7, T.40 N., R.14 E., at culvert on State Highway 70, 2.2 mi (3.5 km) southeast of Alvin. | a1.9 | 1960-73 | 4-16-73 | 10.51 | 9 |
| 04063640 | North Branch Pine River at Windsor Dam near Alvin, Wis. | SE¼ sec.21, T.40 N., R.13 E., at bridge on country road at Windsor Dam 3.8 mi (6.1 km) upstream from confluence of North and South Forks, 4 mi (6.4 km) southwest of Alvin. | 29.4 | 1967-68≠ 1970-73 | 5- 2-73 | 2.67 | 75 |
| 04063688 | South Branch Popple River near Newald, Wis. | NW¼ sec.26, T.38 N., R.15 E., at corrugated twin barrel culvert on unmarked gravel Forest Road 2159, 5.4 mi (8.7 km) east of Newald. | 8.44 | 1970-73 | 10- 3-72 | 12.24 | 56 |

* Also a low-flow partial-record station.
≠ Operated as a continuous-record gaging station.
/ Discharge not determined.
a Approximately.
d Includes 20.3 $mi^2$ without surface drainage.
e Includes 6.4 $mi^2$ without surface drainage.
i Backwater from beaver dam.

Annual maximum discharge at crest-stage partial-record stations

| Station No. | Station name | Location | Drainage area ($mi^2$) | Period of record | Annual maximum | | |
|---|---|---|---|---|---|---|---|
| | | | | | Date | Gage height (ft) | Discharge ($ft^3/s$) |
| | | Streams tributary to Lake Michigan--Continued | | | | | |
| *04063800 | Woods Creek near Fence, Wis. | SE¼ sec.29, T.39 N., R.17 E., at box culvert on State Highway 101, 6 mi (9.7 km) north of Fence. | 41.4 | 1958-73 | 5- 2-73 | 11.25 | 190 |
| 04064800 | Little Popple River near Aurora, Wis. | SW¼ sec.1, T.38 N., R.18 E., at 3-barrel corrugated culvert on County Trunk Highway N, 5.5 mi (8.8 km) west of Aurora. | 35.0 | 1970-73 | 3-15-73 | 13.62 | 475 |
| *04066300 | Cole Creek near Dunbar, Wis. | South boundary sec.34, T.37 N., R.19 E., at culvert on U.S. Highway 8, 3.6 mi (5.8 km) southeast of Dunbar. | a3.2 | 1960-73 | 3-15-73 | 10.63 | 24 |
| 04066700 | McCall Creek at Wausaukee, Wis. | NW¼ sec.1, T.33 N., R.20 E., at culvert on U.S. Highway 141, 1 mi (1.6 km) south of Wausaukee. | 1.48 | 1959-73 | 3-13-73 | 11.85 | 30 |
| 04067500 | Menominee River near McAllister, Wis. | Sec.17, T.33 N., R.23 E., 300 ft above highway bridge on County Trunk JJ, 2.9 mi (4.7 km) east of McAllister. | a4,020 | 1945-61ǂ 1962-73 | 5-11-73 | 16.65 | 21,600 |
| 04067760 | Peshtigo River near Cavour, Wis. | SW¼ sec.29, T.37 N., R.15 E., at bridge on U.S. Highway 8, 0.7 mi (1.1 km) northwest of Cavour. | 153 | 1970-73 | 3-16-73 | 14.35 | 1,160 |
| *04067800 | Armstrong Creek near Armstrong Creek, Wis. | W½ sec.27, T.37 N., R.16 E., at bridge on U.S. Highway 8, 1.8 mi (2.9 km) northwest of Armstrong Creek. | 23.1 | 1958-73 | 5- 2-73 | 10.39 | 125 |
| 04069700 | North Branch Oconto River near Wabeno, Wis. | SW¼ sec.9, T.34 N., R.15 E., at pipe arch culvert on County Trunk Highway C, 0.6 mi (1.0 km) east of intersection with State Highway 32 in Wabeno. | 32.2 | 1970-73 | 3-15-73 | 12.61 | 228 |
| 04071700 | North Branch Little River near Coleman, Wis. | On common boundary of secs.2 and 3, T.29 N., R.20 E., at bridge on U.S. Highway 141, 3.8 mi (6.1 km) south of Coleman. | 23.3 | 1958-73 | 5-28-73 | 14.12 | 510 |
| *04071800 | Pensaukee River near Pulaski, Wis. | NE¼ sec.1, T.26 N., R.18 E., at bridge on State Highway 32 and 6.1 mi (9.8 km) north of Pulaski. | 41.8 | 1961-73 | 5-28-73 | 17.1 | 1,700 |
| *04073400 | Bird Creek at Wautoma, Wis. | S½ sec.34, T.19 N., R.10 E., at concrete culvert on State Highway 21, 0.2 mi (0.3 km) west of Wautoma. | 3.59 | 1959-73 | 3- 7-73 | 13.07 | 190 |
| 04074300 | Mud Creek near Nashville, Wis. | SW¼ sec.30, T.36 N., R.12 E., at concrete circular culvert on U.S. Highway 8, 3.5 mi (5.6 km) north of Nashville. | 10.0 | 1970-73 | 3-11-73 | 12.76 | 72 |
| *04074700 | Hunting River near Elcho, Wis. | N½ sec.24, T.34 N., R.10 E., at twin culverts on U.S. Highway 45 and State Highway 47, 1.5 mi (2.4 km) south of Elcho. | a9.0 | 1958-73 | 9- 2-73 | 12.23 | 105 |
| *04074850 | Lily River near Lily, Wis. | SE¼ sec.11, T.33 N., R.13 E., at culvert on County Trunk Highway A, 3.2 mi (5.1 km) north from junction of State Highways 55 and 52 in Lily. | 52.4 | 1970-73 | 3-11-73 | 10.90 | 142 |
| *04075200 | Evergreen Creek near Langlade, Wis. | NW¼ sec.18, T.31 N., R.14 E., at culvert on State Highway 64, 3.5 mi (5.6 km) southwest of Langlade. | a8.0 | 1959-65 1966-72ǂ 1973 | 3- 7-73 | 10.79 | 43 |
| *04079700 | Spaulding Creek near Big Falls, Wis. | On common boundary of secs.14 and 15, T.25 N., R.12 E., at culvert on County Trunk E, 1.5 mi (2.4 km) north of Big Falls. | a4.9 | 1959-65 1966ǂ 1967-73 | 5-28-73 | 11.23 | 74 |

* Also a low-flow partial-record station.
ǂ Operated as a continuous-record gaging station.
a Approximately.

Annual maximum discharge at crest-stage partial-record stations

| Station No. | Station name | Location | Drainage area ($mi^2$) | Period of record | Annual maximum | | |
|---|---|---|---|---|---|---|---|
| | | | | | Date | Gage height (ft) | Discharge ($ft^3/s$) |
| | | **Streams tributary to Lake Michigan--Continued** | | | | | |
| 04081010 | Waupaca River tributary near Waupaca, Wis. | NW¼ sec.1, T.21 N., R.12 E., at culvert on U.S. Highway 10, 5 mi (8.0 km) southeast of Waupaca. | a1.0 | 1960-73 | 3- 7-73 | 15.09 | 106 |
| 04081900 | Sawyer Creek at Oshkosh, Wis. | SW¼ sec.15, T.18 N., R.16 E., at bridge on U.S. Highway 41, 1 mi (1.6 km) southwest of Algoma Street Fox River bridge in Oshkosh. | 15.3 | 1961-73 | 3-14-73 | 11.92 | 395 |
| 04083400 | East Branch Fond du Lac River tributary near Eden, Wis. | NE¼ sec.14, T.14 N., R.17 E., at culvert on U.S. Highway 41, 3 mi (4.8 km) west of Eden. | 1.19 | 1961-73 | 5- 2-73 | 11.39 | 60 |
| *04085030 | Apple Creek near Kaukauna, Wis. | On west boundary sec.2, T.21 N., R.18 E., at bridge on State Highway 55, 3 mi (4.8 km) north of Kaukauna. | 14.6 | 1960-73 | 3-14-73 | 14.76 | 1,150 |
| 04085100 | East River tributary at Greenleaf, Wis. | NE¼ sec.8, T.21 N., R.20 E., at railroad box culvert, 0.5 mi (0.8 km) south of Greenleaf. | 8.0 | 1958-73 | 3- 7-73 | 11.85 | 245 |
| 04085300 | Neshota River tributary near Denmark, Wis. | NE¼ sec.7, T.22 N., R.22 E., at box culvert on U.S. Highway 141, 3.8 mi (6.1 km) northwest of Denmark. | 3.08 | 1959-73 | 5-27-73 | 14.1 | 300 |
| *04085400 | Killsnake River near Chilton, Wis. | E½ sec.6, T.18 N., R.20 E., at bridge on country road, 2.4 mi (3.9 km) northeast of Chilton. | 29.5 | 1961-73 | 3- 7-73 | 12.0 | 710 |
| *04085700 | Sheboygan River tributary near Plymouth, Wis. | On common boundary of secs.2 and 11, T.15 N., R.21 E., at concrete culvert on County Trunk J, 3.5 mi (5.6 km) northeast of Plymouth. | 5.51 | 1959-73 | 10-23-72 | 10.9 | 150 |
| 04086400 | Milwaukee River tributary near Fredonia, Wis. | SE¼ sec.1, T.11 N., R.21 E., at culvert on country road, 2.3 mi (3.7 km) southeast of Fredonia. | .84 | 1962-73 | 5-27-73 | 12.41 | 90 |
| *04087050 | Little Menomonee River near Freistadt, Wis. | On common boundary of secs.29 and 32, T.9 N., R.21 E., at bridge on Donges Bay Road, 2 mi (3.2 km) south of Freistadt. | 7.96 | 1958-73 | 4-21-73 | 13.14 | 360 |
| 04087100 | Honey Creek at Milwaukee, Wis. | SE¼ sec.15, T.6 N., R.21 E., 400 ft upstream from bridge on S. 68th Street, and 6 mi (9.7 km) southwest from mouth of Milwaukee River in Milwaukee. | 3.34 | 1959-73 | 4-21-73 | 21.40 | 640 |
| *04087200 | Oak Creek near South Milwaukee, Wis. | On common boundary of secs.21 and 22, T.5 N., R.22 E., at bridge on west Nicholson Road, 3 mi (4.8 km) southwest of South Milwaukee. | 13.9 | 1958-73 | 4-21-73 | 16.28 | 260 |
| 04087230 | West Branch Root River Canal tributary near North Cape, Wis. | SE¼ sec.33, T.4 N., R.21 E., at culvert on County Trunk U, 3 mi (4.8 km) southeast of North Cape. | 3.92 | 1962-73 | 4-21-73 | 10.96 | 48 |
| *04087250 | Pike Creek near Kenosha, Wis. | W½ sec.27, T.2 N., R.22 E., at box culvert on State Highway 43, 3 mi (4.8 km) northwest of Kenosha. | 7.25 | 1960-73 | 4-21-73 | 15.10 | 90 |
| | | **St. Croix River Basin** | | | | | |
| *05333100 | Little Frog Creek near Minong, Wis. | NW¼ sec.29, T.42 N., R.11 W., at culvert on country road, 2.5 mi (4.0 km) east of Minong. | 13.0 | 1961-73 | 3-11-73 | 13.15 | 124 |

* Also a low-flow partial-record station.
a Approximately.

Annual maximum discharge at crest-stage partial-record stations

| Station No. | Station name | Location | Drainage area ($mi^2$) | Period of record | Annual maximum | | |
|---|---|---|---|---|---|---|---|
| | | | | | Date | Gage height (ft) | Discharge ($ft^3/s$) |
| | | **St. Croix River Basin--Continued** | | | | | |
| 05334100 | Sawyer Creek near Shell Lake, Wis. | SE¼ sec.13, T.38 N., R.13 W., at box culvert on U.S. Highway 63, 2 mi (3.2 km) north of Shell Lake. | 1.04 | 1960-73 | 3-11-73 | 10.82 | 32 |
| *05335380 | Bashaw Brook near Shell Lake, Wis. | SW¼ sec.8, T.38 N., R.14 W., at twin box culvert on country road 10.5 mi (16.9 km) northwest of Shell Lake. | 24.9 | 1959-65 1966ǂ 1967-73 | 3-13-73 | 13.32 | 160 |
| *05340300 | Trade River near Frederic, Wis. | SW¼ sec.4, T.36 N., R.17 W., at box culvert on State Highways 35 and 48, 2.5 mi (4.0 km) southwest of Frederic. | 6.34 | 1958-73 | 3-11-73 | 11.15 | 90 |
| 05341700 | Willow River tributary near New Richmond, Wis. | NW¼ sec.17, T.30 N., R.17 W., at twin box culvert on County Trunk GG, 3.6 mi (5.8 km) southeast of New Richmond. | 1.40 | 1959-73 | 3-11-73 | 11.84 | 65 |
| 05341900 | Kinnickinnic River tributary at River Falls, Wis. | NE¼ sec.14, T.27 N., R.19 W., at bridge on County Trunk FF, 1.6 mi (2.6 km) southwest of River Falls. | 7.26 | 1959-73 | 3-14-73 | 11.25 | 270 |
| | | **Trimbelle Creek Basin** | | | | | |
| *05346600 | Little Trimbelle Creek near Bay City, Wis. | S½ sec.21, T.25 N., R.18 W., at bridge on County Trunk K, 7 mi (11.3 km) northwest of Bay City. | 19.9 | 1961-73 | 9-26-73 | 10.73 | 430 |
| | | **Chippewa River Basin** | | | | | |
| 05356200 | Kenyon Creek near Radisson, Wis. | NW¼ sec.22, T.38 N., R.6 W., at bridge on State Highway 27, 5 mi (8.0 km) east of Radisson. | a7.5 | 1960-73 | 3-11-73 | 12.45 | 276 |
| 05357360 | Bear River near Powell, Wis. | NE¼ sec.32, T.42 N., R.4 E., at bridge on State Highway 182, 3 mi (4.8 km) west of Powell. | 118 | 1972-73 | 5- 2-73 | 12.82 | 625 |
| 05357390 | Weber Creek near Mercer, Wis. | SE¼ sec.21, T.43 N., R.3 E., at culvert on U.S. Highway 51, 3.7 mi (6.0 km) northeast of Mercer. | 5.86 | 1970-73 | 5- 2-73 | 10.94 | 65 |
| 05358100 | Smith Creek near Park Falls, Wis. | NE¼ sec.15, T.40 N., R.1 W., at culvert on State Highway 13, 1.5 mi (2.4 km) northeast of Park Falls. | 9.11 | 1970-73 | 5- 2-73 | 12.72 | 184 |
| 05359200 | South Fork Flambeau River tributary near Park Falls, Wis. | SW¼ sec.15, T.40 N., R.1 E., at culvert on State Highway 182, 5.1 mi (8.2 km) east of Park Falls. | .86 | 1960-73 | 3-11-73 | 10.53 | 32 |
| *05359600 | Price Creek near Phillips, Wis. | SW¼ sec.31, T.38 N., R.2 W., at culvert on County Trunk W, 13 mi (20.9 km) west of Phillips. | 14.7 | 1958-65 1966ǂ 1967-73 | 3-12-73 | 12.49 | 155 |
| 05360200 | Flambeau River tributary at Ladysmith, Wis. | SW¼ sec.27, T.35 N., R.6 W., at culvert on State Highway 27, 1 mi (1.6 km) north of Ladysmith. | a0.8 | 1960-73 | 5-23-73 | 11.33 | 17 |
| *05361400 | Hay Creek near Prentice, Wis. | SE¼ sec.4, T.35 N., R.1 E., at culvert on U.S. Highway 8, 3.5 mi (5.6 km) west of Prentice. | 21.9 | 1961-73 | 3-11-73 | 13.73 | 870 |
| 05361420 | Douglas Creek near Prentice, Wis. | NE¼ sec.17, T.35 N., R.2 E., at culvert on County Trunk Highway C, 2.3 mi (3.7 km) southeast from intersection with State Highway 13 in Prentice. | 24.6 | 1970-73 | 3-11-73 | 13.87 | 665 |

* Also a low-flow partial-record station.
ǂ Operated as a continuous-record gaging station.
a Approximately.

Annual maximum discharge at crest-stage partial-record stations

| Station No. | Station name | Location | Drainage area ($mi^2$) | Period of record | Annual maximum | | |
|---|---|---|---|---|---|---|---|
| | | | | | Date | Gage height (ft) | Discharge ($ft^3/s$) |
| | | **Chippewa River Basin--Continued** | | | | | |
| 05361600 | North Fork Jump River near Phillips, Wis. | SW¼ sec.5, T.36 N., R.1 E., at culvert on State Highway 13, 4 mi (6.4 km) south of Phillips. | 10.4 | 1970-73 | 3-11-73 | 12.38 | 195 |
| *05364000 | Yellow River at Cadott, Wis. | NE¼ sec.31, T.29 N., R.6 W., at bridge on State Highway 27, in Cadott. | 351 | 1943-61# 1962-73 | 3-12-73 | 13.22 | 10,000 |
| 05364100 | Seth Creek near Cadott, Wis. | SW¼ sec.17, T.29 N., R.6 W., at culvert on State Highway 27, 3.1 mi (5.0 km) north of Cadott. | 3.04 | 1962-73 | 5- 1-73 | 13.91 | 355 |
| 05364500 | Duncan Creek at Bloomer, Wis. | Sec.8, T.30 N., R.9 W., 0.2 mi (0.3 km) below Bloomer Dam at Bloomer. | 49.2 | 1945-51# 1958-73 | 3-11-73 | 8.40 | 1,340 |
| *05365700 | Goggle-eye Creek near Thorp, Wis. | West boundary sec.19, T.29 N., R.3 W., at culvert on State Highway 73, 1.3 mi (2.1 km) north of Thorp. | 6.70 | 1958-73 | 3-11-73 | 14.21 | 720 |
| *05366500 | Eau Claire River near Fall Creek, Wis. | NW¼ sec.19, T.27 N., R.7 W., 500 ft east of County Trunk K, 3.2 mi (5.1 km) north of Fall Creek. | 758 | 1943-55# 1958-73 | 3-12-73 | 15.6 | 16,400 |
| 05367030 | Willow Creek near Eau Claire, Wis. | On common boundary of secs.14 and 15, T.26 N., R.9 W., at box culvert on State Highway 93, 4 mi (6.4 km) south of Eau Claire. | 4.38 | 1958-73 | 3-11-73 | 12.63 | 250 |
| *05367480 | East Branch Pine Creek tributary near Dallas, Wis. | SW¼ sec.1, T.32 N., R.12 W., at culvert on County Trunk O, 1.5 mi (2.4 km) north of Dallas. | 3.85 | 1960-73 | 3-11-73 | 13.58 | 222 |
| 05367500 | Red Cedar River near Colfax, Wis. | SW¼ sec.22, T.30 N., R.11 W., 3.2 mi (5.1 km) below Trout Creek and 4.7 mi (7.6 km) north of Colfax. | a1,110 | 1914-61# 1962-73 | 5- 2-73 | 6.52 | 8,800 |
| 05367700 | Lightning Creek at Almena, Wis. | NW¼ sec.19, T.34 N., R.13 W., at bridge on County Trunk P, in Almena. | 19.8 | 1958-73 | 3-11-73 | 11.38 | 650 |
| 05369800 | Eau Galle River tributary near Hersey, Wis. | SW¼ sec.5, T.28 N., R.15 W., at box culvert on Interstate Highway 94, 2 mi (3.2 km) southwest of Hersey. | .65 | 1960-73 | 3-11-73 | 11.17 | 103 |
| 05370600 | Arkansaw Creek tributary near Arkansaw, Wis. | SW¼ sec.14, T.25 N., R.14 W., at box culvert on U.S. Highway 10, 1.2 mi (1.9 km) northwest of Arkansaw. | 2.56 | 1959-73 | 3-11-73 | 11.99 | 165 |
| *05370900 | Spring Creek near Durand, Wis. | S½ sec.9, T.24 N., R.13 W., at bridge on country road, 4 mi (6.4 km) south of Chippewa River bridge in Durand. | 6.49 | 1962-73 | 9-26-73 | 12.60 | 200 |
| | | **By Golly Creek Basin** | | | | | |
| 05371300 | By Golly Creek near Nelson, Wis. | SW¼ sec.28, T.23 N., R.13 W., at culvert on County Trunk D, 3 mi (4.8 km) northeast of Nelson. | .28 | 1962-73 | 1973 | c | / |
| | | **Buffalo River Basin** | | | | | |
| 05371800 | Buffalo River tributary near Osseo, Wis. | S½ sec.3, T.24 N., R.6 W., at culvert on U.S. Highway 10, 6.5 mi (10.5 km) east of Osseo. | 1.44 | 1960-73 | 4-16-73 | 10.93 | 78 |

* Also a low-flow partial-record station.
\# Operated as a continuous-record gaging station.
/ Discharge not determined.
a Approximately.
c Gage not operating.

Annual maximum discharge at crest-stage partial-record stations

| Station No. | Station name | Location | Drainage area ($mi^2$) | Period of record | Annual maximum | | |
|---|---|---|---|---|---|---|---|
| | | | | | Date | Gage height (ft) | Discharge ($ft^3/s$) |
| | | **Waumandee Creek Basin** | | | | | |
| *05378200 | Eagle Creek near Fountain City, Wis. | SW¼ sec.33, T.20 N., R.11 W., at bridge on County Trunk G, 2.5 mi (4.0 km) north of Fountain City. | 26.8 | 1961-73 | 3-11-73 | 13.17 | 660 |
| | | **Black River Basin** | | | | | |
| 05380800 | Black River tributary near Whittlesey, Wis. | SW¼ sec.35, T.32 N., R.1 E., at bridge on State Highway 13, 1.1 mi (1.8 km) south of Whittlesey. | 2.12 | 1960-73 | 3-11-73 | 12.10 | 175 |
| *05380900 | Poplar River near Owen, Wis. | NW¼ sec.25, T.28 N., R.2 W., at bridge on County Trunk N, 4.2 mi (6.8 km) south of Owen. | 157 | 1958-65 1966# 1967-73 | 5- 2-73 | 18.50 | 8,800 |
| *05380970 | Cawley Creek near Neillsville, Wis. | SW¼ sec.25, T.25 N., R.2 W., at bridge on State Highway 73, 3.7 mi (6.0 km) north of Neillsville. | 38.6 | 1961-73 | 5- 2-73 | 16.87 | 3,080 |
| *05382200 | French Creek near Ettrick, Wis. | NE¼ sec.27, T.20 N., R.8 W., at bridge on County Trunk D and T, 2.5 mi (4.0 km) west of Ettrick. | 14.3 | 1960-73 | 3-11-73 | 10.32 | 240 |
| | | **La Crosse River Basin** | | | | | |
| 05382300 | Beaver Creek tributary near Sparta, Wis. | NW¼ sec.11, T.17 N., R.4 W., at box culvert on State Highways 27 and 71, 1.9 mi (3.1 km) north of Sparta. | 1.72 | 1959-73 | 3-11-73 | 11.70 | 103 |
| *05382500 | Little La Crosse River near Leon, Wis. | NE¼ sec.3, T.16 N., R.4 W., 4 mi (6.4 km) upstream from mouth and 1.5 mi (2.4 km) northwest of Leon. | 77.1 | 1934-61# 1962-73 | 4-16-73 | 5.9 | 960 |
| | | **Mormon Creek Basin** | | | | | |
| *05386300 | Mormon Creek near La Crosse, Wis. | NE¼ sec.19, T.15 N., R.6 W., at bridge on country road, 6 mi (9.7 km) southeast of La Crosse. | 25.5 | 1961-73 | 1973 | b | <400 |
| | | **Bad Axe River Basin** | | | | | |
| *05387100 | North Fork Bad Axe River near Genoa, Wis. | SW¼ sec.36, T.13 N., R.7 W., at bridge on State Highway 56, 4.1 mi (6.6 km) southeast of Genoa. | 68.8 | 1959-65 1966# 1967-73 | 4-16-73 | c | g1,400 |
| | | **Du Charme Creek Basin** | | | | | |
| 05388460 | Du Charme Creek at Eastman, Wis. | NE¼ sec.13, T.8 N., R.6 W., at culvert on County Trunk D in Eastman. | .30 | 1961-73 | 1973 | b | <30 |
| | | **Wisconsin River Basin** | | | | | |
| *05390140 | Muskrat Creek at Conover, Wis. | SW¼ sec.4, T.41 N., R.10 E., at corrugated culvert on U.S. Highway 45, 0.1 mi (0.2 km) north of Conover. | 9.95 | 1970-73 | 3-13-73 | 12.33 | 81 |
| 05390240 | Fourmile Creek near Three Lakes, Wis. | NE¼ sec.26, T.39 N., R.11 E., at 2-barrel corrugated culvert on blacktop forest road, 5.5 mi (8.8 km) northeast of Three Lakes. | 11.6 | 1970-73 | 5- 2-73 | 11.61 | 77 |

* Also a low-flow partial-record station.
\# Operated as a continuous-record gaging station.
b Peak did not reach bottom of the gage.
c Gage not operating.
g Based on peaks at Kickapoo at LaFarge, Wis.

Annual maximum discharge at crest-stage partial-record stations

| Station No. | Station name | Location | Drainage area ($mi^2$) | Period of record | Annual maximum | | |
|---|---|---|---|---|---|---|---|
| | | | | | Date | Gage height (ft) | Discharge ($ft^3/s$) |
| | | **Wisconsin River Basin--Continued** | | | | | |
| 05391260 | Gudegast Creek near Starks, Wis. | NW¼ sec.16, T.37 N., R.10 E., at corrugated culvert on country road, 3 mi (4.8 km) northwest of Starks. | 13.0 | 1970-73 | 5- 2-73 | 12.24 | 78 |
| 05391950 | Squaw Creek near Harrison, Wis. | SW¼ sec.3, T.35 N., R.8 E., at culvert on County Trunk Highway A, 5 mi (8.0 km) northeast of Harrison. | 3.19 | 1970-73 | 8-20-73 | 10.68 | 18 |
| *05392150 | Mishonagon Creek near Woodruff, Wis. | NE¼ sec.32, T.40 N., R.6 E., at twin culvert on State Highway 47, 3 mi (4.8 km) northwest of Woodruff. | 11.9 | 1958-73 | 11- 2-72 | 10.89 | 95 |
| *05392350 | Bearskin Creek near Harshaw, Wis. | SW¼ sec.36, T.37 N., R.6 E., at culvert on County Trunk K, 2.1 mi (3.4 km) southwest of Harshaw. | 27.8 | 1958-65<br>1966ƒ<br>1967-73 | 5- 2-73 | 9.97 | 100 |
| 05393620 | Skanawan Creek near Tomahawk, Wis. | SW¼ sec.13, T.34 N., R.6 E., at culvert on State Highway 107, 3.5 mi (5.6 km) southeast of Tomahawk. | 6.59 | 1970-73 | 5- 2-73 | h13.26 | 70 |
| 05393640 | Little Pine Creek near Irma, Wis. | NW¼ sec.31, T.34 N., R.7 E., at box culvert on U.S. Highway 51, 3 mi (4.8 km) north of Irma. | 22.9 | 1970-73 | 3-15-73 | 13.53 | 225 |
| *05394000 | New Wood River near Merrill, Wis. | E½ sec.15, T.32 N., R.5 E., at bridge on County Trunk E, 9.5 mi (15.3 km) northwest of Merrill. | a83.1 | 1953-61ƒ<br>1962-73 | 3-15-73 | 5.99 | 2,050 |
| *05394200 | Devil Creek near Merrill, Wis. | N½ sec.30, T.31 N., R.6 E., at culvert on County Trunk F, 5.8 mi (9.3 km) southwest of Merrill. | 10.1 | 1961-73 | 5- 2-73 | 13.26 | 380 |
| 05395020 | Lloyd Creek near Doering, Wis. | SE¼ sec.21, T.32 N., R.9 E., at bridge on County Trunk C, 4.5 mi (7.2 km) east of Doering. | 8.54 | 1970-73 | 3-12-73 | 12.90 | 265 |
| 05395100 | Trappe River tributary near Merrill, Wis. | SW¼ sec.28, T.31 N., R.8 E., at culvert on County Trunk P, 9.5 mi (15.3 km) southeast of Merrill. | a2.2 | 1959-73 | 3-12-73 | 12.42 | 112 |
| 05396100 | Pet Brook tributary near Edgar, Wis. | SE¼ sec.31, T.29 N., R.5 E., at culvert on State Highway 29, 1.5 mi (2.4 km) northeast of Edgar. | 6.69 | 1962-73 | 9-26-72<br>4-16-73 | 19.2<br>14.5 | 2,960 i<br>580 |
| 05397600 | Big Sandy Creek near Wausau, Wis. | SE¼ sec.31, T.30 N., R.9 E., at bridge on State Highway 52, 10 mi (16.1 km) northeast of Wausau. | a9.9 | 1959-73 | 5- 2-73 | 11.99 | 340 |
| 05399200 | Randall Creek tributary near Abbotsford, Wis. | South boundary of sec.36, T.29 N., R.2 E., at concrete culvert, on State Highway 29, 5.8 mi (9.3 km) east of Abbotsford. | .56 | 1959-73 | 3-12-73 | 12.55 | 185 |
| 05400025 | Johnson Creek near Knowlton, Wis. | SE¼ NE¼ sec.13, T.26 N., R.7 E., at bridge on County Trunk X, 2.7 mi (4.3 km) east of Knowlton. | 25.6 | 1973 | 5- 2-73 | 18.59 | 5,000 |
| 05401800 | Yellow River tributary near Pittsville, Wis. | On common boundary of secs.11 and 14, T.23 N., R.3 E., at bridge on County Trunk C, 2 mi (3.2 km) north of Pittsville. | 7.27 | 1959-73 | 5- 2-73 | 13.82 | 810 |
| *05403520 | Webster Creek at New Lisbon, Wis. | NE¼ sec.19, T.16 N., R.3 E., at bridge on State Highway 80, 1.2 mi (1.9 km) south of New Lisbon. | 11.5 | 1961-73 | 5- 7-73 | 13.74 | 270 |
| *05403550 | One Mile Creek near Mauston, Wis. | SE¼ sec.24, T.15 N., R.3 E., at bridge on State Highway 58, 2.4 mi (3.9 km) south of Mauston. | 30.4 | 1958-73 | 3- 7-73 | 15.22 | 770 |
| 05403610 | Wisconsin River tributary at Wisconsin Dells, Wis. | NE¼ sec.3, T.13 N., R.6 E., at culvert on State Highway 13, 0.8 mi (1.3 km) north of Wisconsin Dells. | 1.16 | 1962-73 | 3- 7-73 | 10.84 | 27 |

* Also a low-flow partial-record station.
ƒ Operated as a continuous-record gaging station.
a Approximately.
h Backwater from Wisconsin River.
i Revised.

Annual maximum discharge at crest-stage partial-record stations

| Station No. | Station name | Location | Drainage area ($mi^2$) | Period of record | Annual maximum | | |
|---|---|---|---|---|---|---|---|
| | | | | | Date | Gage height (ft) | Discharge ($ft^3/s$) |
| | | **Wisconsin River Basin--Continued** | | | | | |
| *05403700 | Dell Creek near Lake Delton, Wis. | NW¼ sec.2, T.12 N., R.5 E., at bridge on town road, 0.2 mi (0.3 km) north of State Highway 23, and 5 mi (8.0 km) southwest of Lake Delton. | 44.9 | 1957-65♯ 1966-73 | 3- 7-73 | 7.54 | 586 |
| *05404200 | Narrows Creek at Loganville, Wis. | SE¼ sec.8, T.11 N., R.4 E., at bridge on State Highways 23 and 154, and 0.2 mi (0.3 km) north of Loganville. | 40.0 | 1958-65 1966♯ 1967-73 | 4-16-73 | 14.47 | 1,850 |
| *05405600 | Rowan Creek at Poynette, Wis. | S½ sec.35, T.11 N., R.9 E., at bridge on U.S. Highway 51, in Poynette. | 10.1 | 1961-73 | 5- 2-73 | 16.50 | 1,330 |
| 05406800 | Rocky Branch near Richland Center, Wis. | E½ sec.29, T.10 N., R.1 E., at culvert on State Highway 80, 1.5 mi (2.4 km) south of Richland Center. | 1.71 | 1960-73 | 5- 7-73 | 11.35 | 70 |
| *05407100 | Richland Creek near Plugtown, Wis. | NW¼ sec.9, T.8 N., R.3 W., at bridge on U.S. Highway 61, 2 mi (3.2 km) south of Plugtown. | 19.2 | 1958-73 | 2- 1-73 | 14.58 | 490 |
| *05407200 | Crooked Creek near Boscobel, Wis. | SE¼ sec.2, T.7 N., R.3 W., at bridge on U.S. Highway 61, 1.6 mi (2.6 km) south of Boscobel. | 13.1 | 1959-73 | 3- 7-73 | 11.70 | 330 |
| *05407400 | Morris Creek tributary near Norwalk, Wis. | NW¼ sec.21, T.16 N., R.2 W., at bridge on County Trunk T, 2 mi (3.2 km) north of Norwalk. | 4.67 | 1960-73 | 4-16-73 | 11.84 | 500 |
| | | **Grant River Basin** | | | | | |
| *05413400 | Pigeon Creek near Lancaster, Wis. | SW¼ sec.15, T.4 N., R.3 W., at culvert on country road, 2 mi (3.2 km) south of Lancaster. | 6.81 | 1960-65 1966♯ 1967-73 | 6-17-73 | 17.06 | 1,360 |
| | | **Platte River Basin** | | | | | |
| *05414200 | Bear Branch near Platteville, Wis. | NE¼ sec.4, T.3 N., R.1 W., at box culvert on State Highway 81, 2.3 mi (3.7 km) northwest of Platteville. | 2.80 | 1958-73 | 12-30-72 | 13.08 | 325 |
| | | **Galena River Basin** | | | | | |
| *05414900 | Pats Creek near Elk Grove, Wis. | SW¼ sec.4, T.2 N., R.1 E., at bridge on State Highway 81, 7 mi (11.3 km) southeast of Platteville. | 8.49 | 1960-73 | 3- 7-73 | 13.16 | 310 |
| | | **Rock River Basin** | | | | | |
| 05423000 | West Branch Rock River near Waupun, Wis. | SW¼ sec.24, T.14 N., R.15 E., on right bank 700 ft (213 m) downstream from bridge on U.S. Highway 151, 4.5 mi (7.2 km) northeast of Waupun. | 41.4 | 1949-70♯ 1972-73 | 3- 7-73 | 5.73 | 750 |
| *05423300 | South Branch Rock River tributary near Waupun, Wis. | S½ sec.22, T.14 N., R.14 E., at concrete culvert on country road 4.5 mi (7.2 km) northwest of Waupun. | 11.9 | 1959-73 | 3- 7-73 | 12.1 | 400 |
| *05423800 | East Branch Rock River tributary near Slinger, Wis. | S½ sec.26, T.11 N., R.18 E., at culvert on U.S. Highway 41, 4 mi (6.4 km) northwest of Slinger. | 3.04 | 1960-73 | 5-27-73 | 11.41 | 115 |

* Also a low-flow partial-record station.
♯ Operated as a continuous-record gaging station.

Annual maximum discharge at crest-stage partial-record stations

| Station No. | Station name | Location | Drainage area ($mi^2$) | Period of record | Annual maximum | | |
|---|---|---|---|---|---|---|---|
| | | | | | Date | Gage height (ft) | Discharge ($ft^3/s$) |
| | | **Rock River Basin--Continued** | | | | | |
| 05424300 | Rock River tributary near Watertown, Wis. | NE¼ sec.18, T.8 N., R.16 E., at concrete culvert on old U.S. Highway 16, 5 mi (8.0 km) east of Watertown. | 4.58 | 1959-73 | 3- 7-73 | 13.01 | 140 |
| *05425700 | Robbins Creek near Columbus, Wis. | SE¼ sec.11, T.10 N., R.12 E., at culvert on U.S. Highway 16, in Columbus. | 8.54 | 1960-73 | 5-27-73 | 13.38 | 175 |
| 05425827 | Maunesha River near Sun Prairie, Wis. | SE¼ SW¼ sec.23, T.9 N., R.11 E., at bridge on town road, 4.2 mi (6.8 km) northeast of Sun Prairie. | 26.2 | 1973 | 3- 7-73 | 12.41 | 475 |
| 05426100 | Scuppernong Creek near Wales, Wis. | NE¼ sec.6, T.6 N., R.18 E., at culvert on U.S. Highway 18, 1.8 mi (2.9 km) northwest of Wales. | 8.28 | 1962-73 | 4-21-73 | 11.22 | 195 |
| *05427200 | Allen Creek near Fort Atkinson, Wis. | NE¼ sec.17, T.5 N., R.14 E., at box culvert on State Highway 26, 2.5 mi (4.0 km) southwest of Fort Atkinson. | 10.2 | 1958-73 | 12-30-72 | 11.6 | 205 |
| *05427800 | Token Creek near Madison, Wis. | SW¼ sec.4, T.8 N., R.10 E., at culvert on U.S. Highway 51, 8 mi (12.9 km) northeast of State Capitol in Madison. | 24.2 | 1961-65 1966# 1967-73 | 3- 7-73 | 14.29 | 570 |
| *05431400 | Little Turtle Creek at Allens Grove, Wis. | NE¼ sec.6, T.1 N., R.15 E., at bridge on country road, 0.2 mi (0.3 km) south of Allens Grove. | 41.8 | 1962-73 | 4-21-73 | 18.28 | 8,400 |
| *05432300 | Rock Branch near Mineral Point, Wis. | SE¼ sec.8, T.4 N., R.3 E., at box culvert on State Highway 23, 2.5 mi (4.0 km) south of Mineral Point. | 4.83 | 1959-73 | 3- 7-73 | 12.09 | 260 |
| *05433500 | Yellowstone River near Blanchardville, Wis. | NE¼ sec.34, T.4 N., R.4 E., 0.6 mi (1.0 km) upstream from bridge on County Trunk F, and 7 mi (11.3 km) west-southwest of Blanchardville. | 28.5 | 1954-65# 1966-73 | 3- 7-73 | 9.51 | 1,750 |
| 05434200 | Skinner Creek tributary near Monroe, Wis. | S½ sec.14, T.2 N., R.7 E., at culvert on State Highway 69, 2.4 mi (3.9 km) north of Monroe. | .48 | 1959-73 | 5- 8-73 | 12.54 | 80 |
| 05435900 | Sugar River tributary near Pine Bluff, Wis. | SE¼ sec.27, T.7 N., R.7 E., at culvert on County Trunk J, 1.1 mi (1.8 km) southeast of Pine Bluff. | 7.46 | 1961-73 | 3- 7-73 | 12.66 | 165 |
| *05436200 | Gill Creek near Brooklyn, Wis. | NW¼ sec.16, T.4 N., R.9 E., at culvert on State Highway 92, 4.3 mi (6.9 km) west of Brooklyn. | 3.34 | 1961-73 | 3- 7-73 | 13.9 | 150 |
| *05437200 | East Fork Raccoon Creek tributary near Beloit, Wis. | On common boundary of secs.30 and 31, T.1 N., R.12 E., at culvert on State Highway 81, 2.9 mi (4.7 km) west of Beloit. | 4.67 | 1958-73 | 7- 4-73 | 13.55 | 350 |
| | | **Illinois River Basin** | | | | | |
| 05544300 | Mukwonago River tributary near Mukwonago, Wis. | S½ sec.36, T.5 N., R.18 E., at culvert on State Highway 83, 1.5 mi (2.4 km) southeast of Mukwonago. | 1.32 | 1960-73 | 4-21-73 | 10.89 | 31 |
| 05545100 | Sugar Creek at Elkhorn, Wis. | SW¼ sec.29, T.3 N., R.17 E., at culvert on State Highway 11, 2 mi (3.2 km) northeast of Elkhorn. | 6.68 | 1962-73 | 4-21-73 | 17.47 | 900 |
| 05545200 | White River tributary near Burlington, Wis. | On common boundary of secs.27 and 34, T.3 N., R.18 E., at box culvert on State Highway 11, 4.5 mi (7.2 km) west of Burlington. | 2.42 | 1958-73 | 4-21-73 | 14.10 | 290 |

* Also a low-flow partial-record station.
\# Operated as a continuous-record gaging station.

Annual maximum discharge at crest-stage partial-record stations

| Station No. | Station name | Location | Drainage area ($mi^2$) | Period of record | Annual maximum | | |
|---|---|---|---|---|---|---|---|
| | | | | | Date | Gage height (ft) | Discharge ($ft^3/s$) |
| **Illinois River Basin--Continued** | | | | | | | |
| *05545300 | White River near Burlington, Wis. | NW¼ sec.1, T.2 N., R.18 E., at bridge on State Highway 36, 2.2 mi (3.5 km) southwest of Burlington. | 97.5 | 1958-65<br>1966ƒ<br>1967-73 | 4-21-73 | 13.72 | 1,470 |
| *05548150 | North Branch Nippersink Creek tributary near Genoa City, Wis. | E½ sec.32, T.1 N., R.18 E., at bridge on County Trunk B, 3 mi (4.8 km) west of Genoa City. | 13.8 | 1962-73 | 12-30-72 | 11.99 | 240 |

* Also a low-flow partial-record station.
ƒ Operated as a continuous-record gaging station.

## LOW-FLOW INVESTIGATIONS

Series of base-flow discharge measurements were made in various areas of the State during the 1973 water year. These measurements were made as part of a comprehensive program now being carried on in cooperation with the Department of Natural Resources, the object of which is to obtain information on the variability of base flow within small basins.

The measurements for each study are listed in order proceeding downstream, and each tributary is inserted in the order in which it enters the main stream. The data collected in these series of measurements were used in determining the base-flow yields of various parts of the basins. Drainage areas shown were determined from the most recent U.S. Geological Survey maps of the area. Water temperature, dissolved oxygen, and specific conductance measurements were obtained at the time the discharge measurements were made and are available upon request to the district office.

### STREAMS TRIBUTARY TO LAKE SUPERIOR

#### Montreal River basin low-flow investigation

A series of base-flow discharge measurements was made in the Montreal River basin, upstream from Ironwood, Michigan, during the period June 14, 15, 1973. In the week prior to and including the dates the measurements were made, weather records indicate an average of 0.95 in. (23.6 mm) of precipitation in the area. Based on weather records and recorded streamflow data in the region, the discharge measurements are considered to represent medium to high-range base flow.

| Stream | Location | Drainage area ($mi^2$) | Measured Discharge | | |
|---|---|---|---|---|---|
| | | | Date | $ft^3/s$ | $(ft^3/s)/mi^2$ |
| | **Discharge measurements of Montreal River and tributaries** | | | | |
| Montreal River tributary | SE¼ NW¼ sec.33, T.44 N., R.3 E., Iron County, at bridge on town road, 14.2 mi (22.8 km) south of Hurley. | 2.92 | 6-14-73 | 1.27 | .44 |
| Montreal River | NW¼ NW¼ sec.29, T.44 N., R.3 E., Iron County, at culvert at outlet of Pine Lake. | 7.74 | 6-14-73 | 16.9 | 2.18 |
| Montreal River tributary | SW¼ NW¼ sec.20, T.44 N., R.3 E., Iron County, at culvert on U.S. Highway 51 and 12.6 mi (20.3 km) south of Hurley. | .59 | 6-14-73 | .16 | .27 |
| Do | NW¼ SW¼ sec.8, T.44 N., R.3 E., Iron County, at culvert on U.S. Highway 51, 10.2 mi (16.4 km) south of Hurley. | .25 | 6-14-73 | - | - |
| Montreal River | SW¼ NE¼ sec.33, T.45 N., R.3 E., Iron County, just above confluence with Loyasse Creek, 8.4 mi (13.5 km) south of Hurley. | 18.31 | 6-14-73 | - | - |
| Loyasse Creek | SE¼ SW¼ sec.1, T.44 N., R.2 E., Iron County, at culvert on town road, 9.3 mi (15.0 km) south of Hurley. | .40 | 6-14-73 | 3.48 | .87 |
| Do | SW¼ NW¼ sec.6, T.44 N., R.3 E., Iron County, above confluence with tributary, and 9.0 mi (14.5 km) south of Hurley. | 5.02 | 6-14-73 | 6.68 | 1.33 |
| Loyasse Creek tributary | NW¼ SW¼ sec.6, T.44 N., R.3 E., Iron County, at culverts on town road 9.1 mi (14.6 km) south of Hurley. | 9.0 | 6-14-73 | 9.62 | 1.07 |
| Do | NE¼ NW¼ sec.6, T.44 N., R.3 E., Iron County, at Schomberg Park, 8.6 mi (13.8 km) south of Hurley. | 2.17 | 6-14-73 | 1.65 | 1.01 |
| Loyasse Creek | NW¼ NW¼ sec.6, T.44 N., R.3 E., Iron County, at bridge on U.S. Highway 51, 8.8 mi (14.2 km) south of Hurley. | 17.5 | 6-14-73 | 13.8 | 1.52 |
| Do | NW¼ NE¼ sec.32, T.45 N., R.3 E., Iron County, at bridge on town road, 8.0 mi (12.9 km) south of Hurley. | 18.4 | 6-14-73 | 15.3 | .83 |
| Montreal River | SE¼ NE¼ sec.28, T.45 N., R.3 E., Iron County, at end of town road and 7.5 mi (12.1 km) south of Hurley. | 39.1 | 6-14-73 | 37.6 | .96 |
| Montreal River tributary | NW¼ NW¼ sec.29, T.45 N., R.3 E., Iron County, at culvert on town road 6.8 mi (10.9 km) south of Hurley. | .68 | 6-14-73 | .23 | .34 |
| Do | NW¼ NW¼ sec.20, T.45 N., R.3 E., Iron County, at culverts on town road 6.2 mi (10.0 km) south of Hurley. | 1.84 | 6-14-73 | .53 | .29 |
| Do | NW¼ NW¼ sec.20, T.45 N., R.3 E., Iron County, at culvert on town road, 5.8 mi (9.3 km) south of Hurley. | 3.03 | 6-14-73 | .49 | .16 |
| Whitney Creek | SE¼ NW¼ sec.13, T.46 N., R.46 W., Gogebic County, at bridge on town road, 5.6 mi (9.7 km) south of Ironwood, Mich. | 4.18 | 6-14-73 | 1.23 | .29 |
| Montreal River | SW¼ NE¼ sec.8, T.45 N., R.3 E., Iron County, at bridge on County Trunk Highway C, 4.7 mi (7.6 km) south of Hurley. | 52.1 | 6-14-73 | 43.3 | .83 |
| Do | NE¼ NW¼ sec.6, T.45 N., R.3 E., Iron County, beyond end of town road, 2.8 mi (4.5 km) south of Hurley. | 54.7 | 6-14-73 | 52.0 | .95 |
| Do | NW¼ NE¼ sec.34, T.46 N., R.2 E., Iron County, at Aurora Street bridge between Hurley, Wis., and Ironwood, Mich. | 63.8 | 6-15-73 | 42.3 | .66 |

## STREAMS TRIBUTARY TO MISSISSIPPI RIVER

### Pine River basin low-flow investigation

A series of base-flow discharge measurements was made in the Pine River basin during the period October 17-18, 1972. In the week prior to the measurements, weather records at Richland Center indicate 0.47 in. (11.9 mm) of precipitation October 11. Based on recorded streamflow in the region, the discharge measurements are considered to represent high-range base flow.

| Stream | Location | Drainage area ($mi^2$) | Measured Discharge: Date | $ft^3/s$ | $(ft^3/s)/mi^2$ |
|---|---|---|---|---|---|
| | Discharge measurements of Pine River and tributaries | | | | |
| Pine River | NW¼ SW¼ sec.1, T.12 N., R.1 W., Richland County, at bridge on private road, 0.9 mi (1.4 km) northwest of Tuba. | 9.68 | 10-17-72 | 4.36 | 0.45 |
| Pine River tributary | NE¼ NE¼ sec.1, T.12 N., R.1 W., Richland County, just above confluence with unnamed tributary (Groomsmud Valley branch), and 0.9 mi (1.4 km) north of Tuba. | 7.37 | 10-17-72 | 3.85 | .52 |
| Tributary to Pine River tributary | NE¼ NE¼ sec.1, T.12 N., R.1 W., Richland County, at mouth, and 0.9 mi (1.4 km) north of Tuba. | 8.13 | 10-17-72 | 3.94 | .48 |
| Pine River | SW¼ SW¼ sec.6, T.12 N., R.1 E., Richland County, at bridge on State Highway 80, at Tuba. | 27.2 | 10-17-72 | 12.9 | .47 |
| Indian Creek | SW¼ SE¼ sec.7, T.12 N., R.1 E., Richland County, at bridge on town road, and 1.1 mi (1.8 km) southeast of Tuba. | 2.59 | 10-17-72 | 1.02 | .39 |
| Melanchton Creek | SE¼ NW¼ sec.27, T.12 N., R.1 E., Richland County, at bridge on County Trunk C, 1.3 mi (2.1 km) north of Hub City. | 14.3 | 10-18-72 | 8.90 | .62 |
| Pine River | NE¼ SW¼ sec.27, T.12 N., R.1 E., Richland County, at bridge on County Trunk C, 1.2 mi (1.9 km) north of Hub City. | 55.6 | 10-18-72 | 39.6 | .71 |
| Soulee Creek | NW¼ SE¼ sec.34, T.12 N., R.1 E., Richland County, at bridge on State Highway 80, at Hub City. | 4.40 | 10-18-72 | 1.86 | .42 |
| Hawkins Creek | SW¼ NW¼ sec.3, T.11 N., R.1 E., Richland County, at bridge on private road 0.7 mi (1.1 km) south of Hub City. | 15.2 | 10-18-72 | 10.2 | .67 |
| West Branch Pine River | NE¼ NW¼ sec.26, T.12 N., R.1 W., Richland County, at bridge on County Trunk H, at Bloom City. | 14.6 | 10-17-72 | 8.89 | .61 |
| West Branch Pine River tributary | NW¼ SW¼ sec.26, T.12 N., R.1 W., Richland County, at bridge on County Trunk "H", 0.5 mi (0.8 km) south of Bloom City. | 6.11 | 10-17-72 | 4.16 | .68 |
| West Branch Pine River | NE¼ NE¼ sec.9, T.11 N., R.1 E., Richland County, at bridge on County Trunk D, 0.5 mi (0.8 km) west of Rockbridge. | 37.6 | 10-18-72 | 20.3 | .54 |
| Pine River | SE¼ NW¼ sec.10, T.11 N., R.1 E., Richland County, at bridge on State Highway 80, at Rockbridge. | 117 | 10-18-72 | 76.2 | .65 |
| South Buck Creek | NE¼ NW¼ sec.22, T.11 N., R.1 E., Richland County, at bridge on State Highway 80, at Buck Creek. | 4.95 | 10-18-72 | 1.25 | .25 |
| Pine River | NE¼ NW¼ sec.27, T.11 N., R.1 E., Richland County, at bridge on State Highway 80, 1.0 mi (1.6 km) south of Buck Creek. | 128 | 10-18-72 | 86.3 | .67 |
| Fancy Creek | SW¼ NE¼ sec.14, T.11 N., R.1 W., Richland County, at bridge on County Trunk Z, near Gillingham. | 8.58 | 10-17-72 | 4.32 | .50 |
| Fancy Creek tributary | SW¼ SW¼ sec.14, T.11 N., R.1 W., Richland County, at bridge on private road, 1.0 mi (1.6 km) west of Gillingham. | 6.19 | 10-17-72 | 3.70 | .60 |
| Do | NW¼ SW¼ sec.13, T.11 N., R.1 W., Richland County, at bridge on State Highway 56, at Gillingham. | 2.28 | 10-17-72 | 1.04 | .46 |
| Fancy Creek | NE¼ SE¼ sec. 32, T.11 N., R.1 E., Richland County, at bridge on State Highway 56 and 80, 3.5 mi (5.6 km) north of Richland Center. | 28.4 | 10-17-72 | 13.4 | .47 |
| Horse Creek | SW¼ SE¼ sec.5, T.10 N., R.1 E., Richland County, at bridge on State Highway 56-80, 2.3 mi (3.7 km) north of Richland Center. | 8.90 | 10-18-72 | 4.31 | .48 |
| Brush Creek | SW¼ NE¼ sec.17, T.10 N., R.1 E., Richland County, at bridge on private road in Richland Center. | 6.77 | 10-18-72 | 3.07 | .45 |
| Center Creek | SW¼ NE¼ sec.20, T.10 N., R.1 E., Richland County, at bridge on (city) street, in Richland Center. | 2.57 | 10-18-72 | 0.87 | .34 |
| Pine River | SW¼ NW¼ sec.21, T.10 N., R.1 E., Richland County, at sewage treatment plant, at Richland Center. | 190 | 10-18-72 | 110 | .58 |
| Rocky Branch | NE¼ SE¼ sec.29, T.10 N., R.1 E., Richland County, at culvert on State Highway 80, 1.5 mi (2.4 km) south of Richland Center. | 1.68 | 10-18-72 | 0.59 | .35 |
| Pine River | SE¼ SE¼ sec.27, T.10 N., R.1 E., at bridge on County Trunk O, 2.5 mi (4.0 km) southeast of Richland Center. | 198 | 10-18-72 | 131 | .66 |
| Spring Creek | NE¼ SW¼ sec.26, T.10 N., R.1 E., Richland County, at bridge on U.S. Highway 14, 2.7 mi (4.3 km) southeast of Richland Center. | 2.74 | 10-18-72 | 0.56 | .20 |

## STREAMS TRIBUTARY TO MISSISSIPPI RIVER

### Pine River basin low-flow investigation--continued

| Stream | Location | Drainage area ($mi^2$) | Measured Discharge: Date | $ft^3/s$ | $(ft^3/s)/mi^2$ |
|---|---|---|---|---|---|
| | **Discharge measurements of Pine River and tributaries--continued** | | | | |
| Ash Creek | NW¼ NE¼ sec.9, T.9 N., R.1 E., Richland County, at bridge on County Trunk "O", 4.3 mi (6.9 km) south of Richland Center. | 7.95 | 10-17-72 | 3.46 | 0.44 |
| Do | SE¼ NE¼ sec.2, T.9 N., R.1 E., Richland County, at bridge on County Trunk TB, 4.0 mi (6.4 km) southeast of Richland Center. | 18.4 | 10-17-72 | 6.08 | .33 |
| Willow Creek | SE¼ SW¼ sec.6, T.9 N., R.2 E., Richland County, just above junction with (left bank) tributary, 150 ft (45.7 m) above US 14 bridge. | 79.3 | 10-17-72 | 53.0 | .67 |
| Willow Creek tributary | SW¼ SE¼ sec.6, T.9 N., R.2 E., Richland County, at bridge on County Trunk B, at Sextonville, 0.10 mi (0.16 km) above mouth. | 2.93 | 10-17-72 | 0.28 | .10 |
| Pine River | SE¼ SW¼ sec.30, T.9 N., R.2 E., Richland County, at bridge on State Highway 60, at Gotham. | 320 | 10-17-72 | 238 | .74 |

### Blue River basin low-flow investigation

A series of base-flow measurements was made in the Blue River basin during the period October 17-19, 1972. In the week prior to the measurements, weather records indicate about 0.48 in. (12.2 mm) of precipitation fall in the area. Based on recorded streamflow in the region, the discharge measurements are considered to represent high-range base flow.

| | | | | | |
|---|---|---|---|---|---|
| | **Discharge measurements of Blue River and tributaries** | | | | |
| Blue River | NW¼ SE¼ sec.17, T.6 N., R.1 E., Iowa County, just above confluence with Blue River tributary, 2.6 mi (4.2 km) northeast of Montfort. | 4.88 | 10-19-72 | 1.47 | .30 |
| Blue River tributary | SW¼ NE¼ sec.17, T.6 N., R.1 E., Iowa County, at bridge on town road, 2.6 mi (4.2 km) northeast of Montfort. | 3.22 | 10-19-72 | .18 | .06 |
| Do | NW¼ SW¼ sec.8, T.6 N., R.1 W., Iowa County, at culvert on town road, 3.2 mi (5.1 km) southwest of Highland. | 3.93 | 10-19-72 | .04 | .01 |
| Blue River | NW¼ NW¼ sec.2, T.6 N., R.1 W., Grant County, at bridge on town road, 4.5 mi (7.2 km) west of Highland. | 29.8 | 10-19-72 | 12.5 | .42 |
| Big Rock Branch | NE¼ SE¼ sec.26, T.7 N., R.1 W., Grant County, at bridge on town road, 3.8 mi (6.1 km) west of Highland. | 9.42 | 10-19-72 | .61 | .06 |
| Blue River | NW¼ SW¼ sec.10, T.7 N., R.1 W., Grant County, at bridge on town road, and 6.7 mi (10.8 km) south of Muscoda. | 50.0 | 10-17-72 | 20.7 | .41 |
| Six Mile Branch | SW¼ SW¼ sec.2, T.7 N., R.1 W., Grant County, at bridge on town road, 5.8 mi (9.3 km) south of Muscoda. | 11.3 | 10-19-72 | 2.68 | .24 |
| Big Spring Branch | SW¼ SE¼ sec.18, T.7 N., R.1 E., Iowa County, at bridge on town road, 7.6 mi (12.2 km) south of Muscoda. | 7.36 | 10-19-72 | 1.42 | .20 |
| Do | SE¼ NW¼ sec.11, T.7 N., R.1 W., Grant County, at bridge on private road, 6.1 mi (9.8 km) south of Muscoda. | 12.0 | 10-19-72 | 4.39 | .37 |
| Blue River | SE¼ NE¼ sec.32, T.8 N., R.1 W., Grant County, at bridge on County Trunk C, 4.8 mi (7.7 km) southeast of Blue River. | 79.6 | 10-17-72 | 35.5 | .45 |
| Pennimore Fork | NW¼ SW¼ sec.11, T.6 N., R.2 W., Grant County, at bridge on County Trunk Q, 3.8 mi (6.1 km) southwest of Castle Rock. | 7.10 | 10-18-72 | 1.27 | .18 |
| Do | NW¼ SW¼ sec.36, T.7 N., R.2 W., Grant County, at bridge on County Trunk Q, 1.7 mi (2.7 km) southwest of Castle Rock. | 23.3 | 10-18-72 | 1.38 | .06 |
| Pennimore Fork tributary | NE¼ NE¼ sec.1, T.6 N., R.2 W., Grant County, at bridge on town road, 1.4 mi (2.3 km) southwest of Castle Rock. | 15.5 | 10-18-72 | 4.66 | .30 |
| Do | NE¼ NE¼ sec.31, T.7 N., R.1 W., Grant County, at bridge on town road at Castle Rock. | 3.73 | 10-18-72 | .12 | .03 |
| Do | SW¼ SE¼ sec.13, T.7 N., R.2 W., Grant County, at bridge on private road, 7.8 mi (12.6 km) south of Blue River. | 10.7 | 10-18-72 | 3.69 | .34 |

STREAMS TRIBUTARY TO MISSISSIPPI RIVER

Blue River basin low-flow investigation--continued

| Stream | Location | Drainage area ($mi^2$) | Measured Discharge | | |
|---|---|---|---|---|---|
| | | | Date | $ft^3/s$ | $(ft^3/s)/mi^2$ |
| Discharge measurements of Blue River and tributaries--continued | | | | | |
| Pennimore Park | SW¼ NW¼ sec.18, T.7 N., R.1 W., Grant County, at bridge on town road, 7.3 mi (11.7 km) south of Blue River. | 61.2 | 10-18-72 | 25.1 | 0.41 |
| Do | NW¼ NW¼ sec.6, T.7 N., R.1 W., Grant County, just above confluence with unnamed tributary, 5.2 mi (8.4 km) south of Blue River. | 68.8 | 10-18-72 | 31.6 | .46 |
| Pennimore Park tributary | NW¼ NW¼ sec.6, T.7 N., R.1 W., Grant County, at mouth, 5.2 mi (8.4 km) south of Blue River. | 8.34 | 10-18-72 | 2.26 | .27 |
| Sand Branch | SW¼ NW¼ sec.21, T.8 N., R.1 W., Grant County, at bridge on County Trunk G, 3.3 mi (5.3 km) southwest of Muscoda. | 8.42 | 10-17-72 | 2.86 | .34 |
| Blue River tributary | SW¼ NW¼ sec.15, T.8 N., R.1 W., Grant County at bridge on County Trunk G, 2.0 mi (3.2 km) southwest of Muscoda. | 2.82 | 10-17-72 | 0 | 0 |
| Blue River | NW¼ NW¼ sec.16, T.8 N., R.1 W., Grant County, at bridge on town road (Forest Road) and 3.2 mi (5.1 km) east of Blue River. | 181 | 10-17-72 | 77.1 | .43 |
| Do | NW¼ NW¼ sec.12, T.8 N , R.2 W., Grant County, at bridge on State Highway 133 at Blue River. | 188 | 10-17-72 | 79.3 | .42 |

FIGURE 6.

**WATER-QUALITY STATIONS IN WISCONSIN**

**1973 WATER YEAR**

**DEPARTMENT OF THE INTERIOR**
**UNITED STATES GEOLOGICAL SURVEY**

PART 2. WATER QUALITY RECORDS

# PART 2. WATER QUALITY RECORDS

## STREAMS TRIBUTARY TO LAKE MICHIGAN

### 04063700 POPPLE RIVER NEAR FENCE, WIS.
(Hydrologic bench-mark station)

LOCATION.--Lat 45°45'49", long 88°27'47", in NW¼ sec.23, T.38 N., R.16 E., Florence County, temperature recorder at gaging station, on left bank 20 ft (6.1 m) upstream from bridge on U.S. Forest Service Road 2159, 1.8 mi (2.90 km) downstream from Mud Creek, 2.6 mi (4.18 km) northwest of Fence, and at mile 11.5 (18.5 km).

DRAINAGE AREA.--131 $mi^2$ (339 $km^2$).

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1973.
Water Temperatures: June 1964 to September 1973.

EXTREMES, 1972-73.--Water temperatures: Maximum, 24.5°C Aug. 29, 30, 1973; minimum, freezing point on many days during November to April.

EXTREMES, 1964-73.--Water temperatures: Maximum, 29.0°C July 1, 2, 1970; minimum, freezing point on many days during winter months.

REMARKS.--Miscellaneous samples of chemical data published for water years 1964-67. Laboratory analyses of biological constituents furnished by State Laboratory of Hygiene, Madison, Wisconsin.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | PH (UNITS) | SPECIFIC CONDUCTANCE (MICROMHOS) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) | SODIUM ADSORPTION RATIO | PERCENT SODIUM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 17... | 1230 | 4.0 | 111 | 9.7 | 7.2 | 125 | 14 | 6.8 | 1.3 | .1 | 4 |
| NOV. | | | | | | | | | | | |
| 02... | 1230 | 3.5 | 153 | 9.6 | 7.0 | 189 | 13 | 6.1 | 1.3 | .1 | 5 |
| DEC. | | | | | | | | | | | |
| 07... | 1030 | .0 | 63 | 12 | 7.3 | 220 | 25 | 8.5 | 1.2 | .1 | 3 |
| JAN. | | | | | | | | | | | |
| 09... | 1215 | .0 | 47 | 15 | 7.5 | 205 | 25 | 10 | 1.6 | .1 | 3 |
| FEB. | | | | | | | | | | | |
| 05... | 1500 | .0 | 71 | 14 | 7.2 | 210 | 22 | 9.9 | 1.3 | .1 | 3 |
| MAR. | | | | | | | | | | | |
| 21... | 1630 | 2.0 | 565 | -- | 5.7 | 75 | -- | -- | -- | -- | -- |
| APR. | | | | | | | | | | | |
| 25... | 1230 | 18.0 | 487 | 2.0 | 6.8 | 75 | 10 | 3.4 | .8 | .1 | 4 |
| JUNE | | | | | | | | | | | |
| 14... | 1300 | 14.5 | 160 | 6.0 | 7.2 | 140 | 14 | 8.2 | 1.2 | .1 | 4 |
| JULY | | | | | | | | | | | |
| 19... | 1040 | 15.5 | 52 | 8.2 | 7.0 | 240 | 22 | 12 | 1.5 | .1 | 3 |
| AUG. | | | | | | | | | | | |
| 23... | 1130 | 12.0 | 69 | 10 | 7.4 | 200 | 24 | 10 | 1.4 | .1 | 3 |

| DATE | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | CARBONATE (CO3) (MG/L) | ALKALINITY AS CACO3 (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | TOTAL NITRATE (N) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | |
| 17... | .5 | 65 | 0 | 53 | 5.6 | 3.5 | .3 | .10 | .08 | 103 |
| NOV. | | | | | | | | | | |
| 02... | .6 | 63 | 0 | 52 | .6 | 3.0 | .3 | .20 | .07 | 75 |
| DEC. | | | | | | | | | | |
| 07... | .8 | 103 | 0 | 84 | 7.0 | 3.0 | .4 | .30 | .05 | 128 |
| JAN. | | | | | | | | | | |
| 09... | .9 | 110 | 0 | 97 | 7.0 | 3.0 | .2 | .40 | .05 | 123 |
| FEB. | | | | | | | | | | |
| 05... | .8 | 109 | 0 | 89 | 6.4 | 4.0 | .2 | .20 | .08 | 116 |
| MAR. | | | | | | | | | | |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR. | | | | | | | | | | |
| 25... | .6 | 33 | 0 | 27 | 3.8 | 3.0 | .2 | .10 | .02 | 77 |
| JUNE | | | | | | | | | | |
| 14... | .5 | 77 | 0 | 63 | 1.0 | 5.0 | .2 | .10 | .05 | 97 |
| JULY | | | | | | | | | | |
| 19... | .9 | 116 | 0 | 95 | 3.8 | 6.0 | .2 | .06 | .02 | 125 |
| AUG. | | | | | | | | | | |
| 23... | .7 | 115 | 0 | 94 | 3.2 | 2.0 | .1 | .03 | .04 | 121 |

04063700 POPPLE RIVER NEAR FENCE, WIS.--Continued

| DATE | DIS-SOLVED SOLIDS (TONS PER DAY) | DIS-SOLVED SOLIDS (TONS PER AC-FT) | NON-CAR-BONATE HARD-NESS (MG/L) | HARD-NESS (CA,MG) (MG/L) | CARBON DIOXIDE (CO2) (MG/L) | BIO-CHEM-ICAL OXYGEN DEMAND (MG/L) | DIS-SOLVED OXYGEN (MG/L) | PER-CENT SATUR-ATION | IMME-DIATE COLI-FORM (COL. PER 100 ML) | FECAL COLI-FORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | |
| 17... | 30.9 | .14 | 10 | 63 | 6.6 | 1.2 | 12.0 | 92 | -- | -- |
| NOV. | | | | | | | | | | |
| 02... | 31.0 | .10 | 6 | 58 | 10 | 2.5 | 11.6 | 87 | -- | -- |
| DEC. | | | | | | | | | | |
| 07... | 21.8 | .17 | 13 | 98 | 8.3 | 1.0 | 10.5 | 72 | 300 | <10 |
| JAN. | | | | | | | | | | |
| 09... | 15.6 | .17 | 8 | 100 | 6.0 | .8 | 12.8 | 88 | 110 | <5 |
| FEB. | | | | | | | | | | |
| 05... | 22.2 | .16 | 6 | 96 | 11 | -- | 11.4 | 79 | 200 | <5 |
| MAR. | | | | | | | | | | |
| 21... | -- | -- | -- | -- | -- | -- | 13.0 | 94 | 500 | <5 |
| APR. | | | | | | | | | | |
| 25... | 101 | .10 | 12 | 39 | 8.4 | .7 | 9.2 | 72 | -- | -- |
| JUNE | | | | | | | | | | |
| 14... | 41.9 | .13 | 6 | 68 | 7.8 | 1.3 | 8.9 | 91 | -- | <10 |
| JULY | | | | | | | | | | |
| 19... | 17.5 | .17 | 10 | 100 | 19 | .7 | 7.9 | -- | 600 | 20 |
| AUG. | | | | | | | | | | |
| 23... | 22.9 | .16 | 8 | 100 | 7.3 | 1.9 | 7.4 | 72 | 600 | 140 |

| DATE | TIME | INSTAN-TANEOUS DIS-CHARGE (CFS) | DIS-SOLVED ARSENIC (AS) (UG/L) | DIS-SOLVED CAD-MIUM (CD) (UG/L) | DIS-SOLVED CHRO-MIUM (CR) (UG/L) | DIS-SOLVED COBALT (CO) (UG/L) | DIS-SOLVED COPPER (CU) (UG/L) |
|---|---|---|---|---|---|---|---|
| JUNE | | | | | | | |
| 14... | 1300 | 160 | 0 | 0 | 0 | 0 | 1 |

| DATE | DIS-SOLVED IRON (FE) (UG/L) | DIS-SOLVED LEAD (PB) (UG/L) | DIS-SOLVED MAN-GANESE (MN) (UG/L) | DIS-SOLVED NICKEL (NI) (UG/L) | DIS-SOLVED ZINC (ZN) (UG/L) | DIS-SOLVED MERCURY (HG) (UG/L) |
|---|---|---|---|---|---|---|
| JUNE | | | | | | |
| 14... | 620 | 6 | 100 | 3 | 20 | <.5 |

## 04063700 POPPLE RIVER NEAR FENCE, WIS.--Continued

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 8.5 | 6.0 | 4.0 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 | 9.0 | 7.0 | 5.5 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3 | 8.5 | 7.0 | 3.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4 | 10.0 | 8.5 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5 | 11.0 | 10.0 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 6 | 11.0 | 10.5 | 3.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 7 | 10.5 | 9.0 | 4.5 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 8 | 9.5 | 8.0 | 3.5 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 9 | 8.0 | 6.5 | 3.5 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10 | 8.5 | 6.0 | 3.0 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 11 | 8.0 | 6.5 | 3.0 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 12 | 8.5 | 6.0 | 3.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 13 | 7.0 | 6.5 | 1.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 14 | 7.5 | 6.0 | 3.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15 | 6.5 | 5.5 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 16 | 6.5 | 5.0 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17 | 5.0 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 18 | 2.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 19 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20 | 2.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 |
| 21 | 3.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| 22 | 3.5 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| 23 | 3.5 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 | 2.0 |
| 24 | 3.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 | 1.5 |
| 25 | 2.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.5 | 3.0 |
| 26 | 4.5 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.0 | 4.5 |
| 27 | 5.5 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.5 | 4.0 |
| 28 | 5.5 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.5 | 4.5 |
| 29 | 5.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- | --- | 8.0 | 6.5 |
| 30 | 4.0 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- | --- | 9.0 | 7.0 |
| 31 | 4.0 | 3.5 | --- | --- | 0.0 | 0.0 | 0.0 | 0.0 | --- | --- | 8.0 | 6.5 |
| MONTH | 11.0 | 0.5 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.0 | 0.0 |

| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 6.0 | 5.5 | 13.5 | 9.0 | 14.5 | 14.0 | 17.0 | 11.5 | 12.0 | 11.0 | 23.0 | 20.5 |
| 2 | 5.5 | 4.5 | 9.0 | 9.5 | 14.5 | 14.0 | 18.0 | 15.0 | 14.0 | 11.0 | 23.0 | 21.0 |
| 3 | 4.5 | 4.0 | 9.5 | 9.0 | 14.0 | 11.5 | 18.5 | 14.0 | 15.5 | 11.5 | 22.0 | 20.5 |
| 4 | 4.0 | 3.5 | 9.0 | 9.5 | 14.0 | 10.5 | 18.5 | 15.5 | 16.5 | 13.0 | 21.5 | 20.5 |
| 5 | 4.0 | 3.0 | 10.0 | 9.5 | 15.0 | 13.5 | 17.0 | 13.5 | 19.0 | 15.0 | 21.0 | 19.5 |
| 6 | 4.5 | 3.0 | 10.5 | 9.5 | 14.5 | 13.0 | 19.0 | 14.5 | 19.0 | 16.5 | 19.5 | 17.0 |
| 7 | 4.5 | 4.0 | 10.5 | 10.0 | 14.0 | 11.5 | 21.0 | 17.0 | 16.5 | 15.5 | 18.0 | 15.0 |
| 8 | 4.5 | 3.5 | 10.0 | 10.0 | 13.0 | 11.0 | 23.0 | 20.0 | 15.5 | 14.5 | 16.5 | 14.5 |
| 9 | 4.5 | 3.0 | 11.5 | 10.0 | 13.5 | 10.5 | 22.0 | 18.5 | 17.0 | 14.5 | 16.0 | 13.0 |
| 10 | 3.5 | 2.0 | 12.0 | 11.0 | 16.5 | 13.5 | 19.0 | 15.0 | 17.0 | 14.5 | 17.0 | 14.0 |
| 11 | 5.0 | 2.0 | 12.0 | 11.0 | 16.5 | 15.5 | 18.0 | 14.5 | 16.0 | 14.5 | 16.5 | 14.5 |
| 12 | 5.0 | 3.5 | 12.0 | 10.5 | 16.0 | 14.5 | 18.0 | 15.0 | 16.5 | 13.0 | 15.0 | 13.0 |
| 13 | 5.5 | 4.5 | 12.0 | 9.5 | 15.0 | 13.0 | 17.0 | 15.5 | 16.5 | 13.5 | 15.0 | 13.0 |
| 14 | 8.5 | 5.5 | 12.0 | 10.0 | 16.5 | 13.5 | 16.5 | 14.5 | 15.0 | 13.0 | 15.5 | 14.0 |
| 15 | 8.0 | 6.5 | 11.0 | 9.5 | 16.0 | 14.5 | 16.0 | 13.5 | 15.0 | 13.0 | 14.5 | 13.0 |
| 16 | 7.0 | 5.5 | 11.0 | 10.0 | 16.0 | 14.5 | 16.0 | 13.5 | 15.5 | 13.5 | 13.5 | 11.5 |
| 17 | 7.0 | 4.0 | 11.5 | 9.0 | 14.5 | 13.0 | 18.0 | 14.0 | 15.5 | 14.0 | 13.0 | 10.5 |
| 18 | 10.0 | 6.5 | 11.5 | 10.0 | 14.5 | 13.0 | 18.5 | 15.5 | 16.5 | 14.5 | 11.5 | 9.0 |
| 19 | 10.0 | 9.5 | 12.0 | 11.0 | 16.0 | 14.0 | 19.0 | 15.5 | 16.5 | 16.0 | 11.5 | 9.5 |
| 20 | 10.0 | 9.5 | 14.0 | 11.0 | 15.5 | 14.5 | 19.5 | 16.5 | 16.0 | 14.0 | 11.5 | 10.0 |
| 21 | 13.5 | 10.0 | 15.0 | 12.0 | 14.5 | 13.5 | 18.0 | 15.0 | 15.5 | 12.0 | 11.5 | 10.0 |
| 22 | 13.0 | 10.5 | 16.5 | 13.5 | 13.5 | 13.0 | 17.0 | 14.5 | 14.5 | 12.0 | 11.5 | 10.0 |
| 23 | 10.5 | 8.5 | 16.5 | 14.5 | 14.5 | 12.0 | 16.5 | 15.0 | 17.0 | 11.5 | 11.5 | 11.0 |
| 24 | 10.0 | 6.5 | 15.5 | 14.0 | 14.5 | 11.0 | 16.0 | 15.0 | 17.0 | 14.5 | 14.0 | 11.0 |
| 25 | 11.5 | 9.0 | 14.0 | 12.0 | 14.5 | 13.5 | 19.0 | 15.5 | 17.0 | 16.0 | 15.5 | 14.0 |
| 26 | 11.0 | 10.0 | 13.5 | 12.0 | 14.5 | 12.0 | 19.0 | 16.5 | 18.5 | 17.0 | 16.0 | 14.5 |
| 27 | 11.0 | 9.5 | 13.5 | 13.0 | 15.0 | 13.5 | 18.5 | 16.0 | 22.0 | 18.5 | 18.0 | 16.0 |
| 28 | 10.5 | 8.5 | 13.0 | 12.0 | 12.0 | 12.0 | 16.5 | 13.5 | 23.5 | 20.5 | 16.5 | 14.5 |
| 29 | 11.0 | 8.5 | 14.5 | 11.0 | 11.5 | 11.0 | 16.0 | 13.5 | 24.5 | 21.5 | 15.5 | 14.0 |
| 30 | 11.0 | 9.5 | 14.5 | 14.0 | 13.5 | 10.5 | 15.5 | 13.5 | 24.5 | 21.5 | 14.5 | 12.0 |
| 31 | --- | --- | 14.5 | 14.5 | --- | --- | 15.0 | 13.0 | 21.0 | 19.5 | --- | --- |
| MONTH | 13.5 | 2.0 | 16.5 | 4.5 | 16.5 | 10.5 | 23.0 | 11.5 | 24.5 | 11.0 | 23.0 | 9.0 |
| YEAR | 24.5 | 0.0 | | | | | | | | | | |

04063700 POPPLE RIVER NEAR PENCE, WIS.--Continued

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| OCT., 1972 | | | | | |
| 17... | 1205 | -- | 111 | 8 | 2.4 |
| NOV. | | | | | |
| 02... | 1200 | -- | 153 | 10 | 4.1 |
| DEC. | | | | | |
| 07... | 1025 | -- | 63 | 8 | .80 |
| JAN., 1973 | | | | | |
| 02... | 1700 | -- | 49 | 6 | .79 |
| 09... | 1730 | -- | 48 | 2 | .26 |
| 10... | 1100 | -- | 48 | 2 | .26 |
| 16... | 1410 | -- | 48 | 4 | .52 |
| 23... | 1445 | -- | 48 | 4 | .52 |
| 30... | 1730 | -- | 60 | 2 | .32 |
| FEB. | | | | | |
| 05... | 1200 | -- | 71 | 1 | .19 |
| 06... | 1715 | -- | 60 | 1 | .16 |
| 13... | 1340 | -- | 92 | 14 | 3.5 |
| 20... | 1400 | -- | 66 | 7 | 1.2 |
| 27... | 1745 | -- | 76 | 8 | 1.6 |
| MAR. | | | | | |
| 03... | 1400 | -- | 82 | 6 | 1.3 |
| 08... | 1115 | -- | 250 | 8 | 5.4 |
| 09... | 1325 | -- | 230 | 6 | 3.7 |
| 10... | 1555 | -- | 210 | 5 | 2.8 |
| 11... | 2125 | -- | 290 | 4 | 3.1 |
| 12... | 1510 | -- | 320 | 13 | 11 |
| 13... | 1400 | -- | 390 | 13 | 14 |
| 14... | 1750 | -- | 420 | 8 | 9.1 |
| 15... | 1430 | -- | 580 | 6 | 8.1 |
| 16... | 1410 | -- | 620 | 3 | 5.0 |
| 17... | 1450 | -- | 635 | 10 | 17 |
| 18... | 1640 | -- | 665 | 16 | 29 |
| 19... | 1755 | -- | 660 | 10 | 18 |
| 20... | 1730 | -- | 635 | 8 | 14 |
| 21... | 1635 | 2.0 | 580 | 8 | 12 |
| 22... | 2910 | -- | 472 | 3 | 3.8 |
| 23... | 1240 | -- | 440 | 5 | 5.9 |
| 23... | 1925 | -- | 440 | 2 | 2.4 |
| 24... | 1755 | -- | 412 | 4 | 4.4 |
| 25... | 2100 | -- | 396 | 4 | 4.3 |
| 26... | 1640 | -- | 380 | 3 | 3.1 |
| 27... | 1635 | -- | 380 | 4 | 4.1 |
| 28... | 1810 | -- | 380 | 5 | 5.1 |
| 29... | 1930 | -- | 380 | 4 | 4.2 |
| 30... | 2030 | -- | 480 | 6 | 6.5 |
| 31... | 2055 | -- | 484 | 7 | 7.6 |
| APR. | | | | | |
| 01... | 2015 | -- | 412 | 4 | 4.4 |
| 02... | 1505 | -- | 436 | 4 | 4.7 |
| 03... | 1325 | -- | 440 | 4 | 4.8 |
| 04... | 1445 | -- | 448 | 3 | 3.6 |
| 05... | 1450 | -- | 424 | 4 | 4.6 |
| 06... | 1450 | -- | 392 | 4 | 4.2 |
| 07... | 1800 | -- | 368 | 8 | 7.9 |
| 08... | 1725 | -- | 320 | 2 | 1.8 |
| 09... | 1500 | -- | 305 | 4 | 3.3 |
| 10... | 1415 | -- | 275 | 4 | 3.0 |
| 11... | 1405 | -- | 254 | 2 | 1.4 |
| 12... | 1500 | -- | 236 | 5 | 3.2 |
| 13... | 1510 | -- | 215 | 2 | 1.2 |
| 14... | 1600 | -- | 200 | 6 | 3.2 |
| 15... | 1645 | -- | 233 | 4 | 2.5 |
| 16... | 1845 | -- | 484 | 4 | 4.4 |
| 24... | 1150 | 5.0 | 500 | 6 | 8.2 |
| JUNE | | | | | |
| 14... | 1245 | 19.5 | 140 | 6 | 2.3 |
| AUG. | | | | | |
| 23... | 1200 | 16.5 | 72 | 4 | .78 |

## 04086040 LAKE MICHIGAN AT MILWAUKEE, WIS.

LOCATION.--Lat 43°04'56", long 87°50'44", in SW¼ SW¼ NW¼ sec.12, T.7 N., R.22 E., Milwaukee County, at City of Milwaukee public water supply intake, 1.1 mi (1.8 km) offshore and at mile 624.40 (1,004.7 km).
DRAINAGE AREA.--67,900 mi² (175,900 km²). Surface area: 22,400 mi² (58,016 km²).
PERIOD OF RECORD.--Chemical analyses: October 1969 to June 1973 (discontinued).
REMARKS.--Samples are taken from the raw water tap in the Linwood Purification Plant Laboratory. Analyses are performed by purification plant personnel, USGS, and EPA-WQO. Drainage area and surface area provided by EPA-WQO. Station operated by EPA during period August 1960 to September 1969.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | TEMPERATURE (DEG C) | TURBIDITY (JTU) | COLOR (PLATINUM-COBALT UNITS) | SPECIFIC CONDUCTANCE (MICROMHOS) | DISSOLVED OXYGEN (MG/L) | PERCENT SATURATION | BIOCHEMICAL OXYGEN DEMAND (MG/L) | CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L) | PH (UNITS) | CARBON DIOXIDE (CO2) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 02... | 0800 | 9.3 | 2 | 1 | 265 | 10.4 | 91 | .7 | -- | 8.3 | -- |
| 09... | 0800 | 11.0 | 3 | -- | -- | 10.5 | 95 | -- | 11 | 8.3 | -- |
| 16... | 0800 | 10.6 | 5 | 1 | -- | 10.4 | 93 | .9 | 19 | 8.3 | 1.0 |
| 23... | 0800 | 8.9 | 1 | 1 | -- | 10.5 | 90 | .5 | 10 | 8.2 | -- |
| 30... | 0800 | 8.3 | 10 | 3 | -- | 10.8 | 91 | 2.0 | 11 | 8.3 | 1.1 |
| NOV. | | | | | | | | | | | |
| 06... | 0800 | 8.4 | 3 | -- | 286 | 10.9 | 92 | .2 | -- | 8.4 | -- |
| 13... | 0800 | 7.6 | 5 | 1 | -- | 10.9 | 95 | .5 | 9 | 8.3 | -- |
| 20... | 0800 | 5.9 | 5 | -- | -- | 11.8 | 95 | .5 | 10 | 8.2 | 1.3 |
| 27... | 0800 | 5.7 | 1 | 1 | -- | 11.9 | 94 | .3 | 13 | 8.4 | .8 |
| DEC. | | | | | | | | | | | |
| 04... | 0800 | 4.6 | 4 | 1 | 267 | 12.1 | 93 | .4 | -- | 8.4 | .8 |
| 11... | 0800 | 2.0 | 2 | 1 | -- | 12.7 | 92 | .1 | -- | 8.4 | .8 |
| 18... | 0800 | 1.4 | 7 | -- | -- | 12.7 | 91 | .8 | -- | 8.3 | 1.0 |
| 26... | 1030 | 2.4 | -- | -- | -- | 12.6 | 92 | -- | -- | 8.4 | -- |
| JAN. | | | | | | | | | | | |
| 02... | 0800 | 2.6 | 1 | 1 | 264 | 12.9 | 95 | .5 | 12 | 8.2 | 1.3 |
| 15... | 0800 | 1.7 | 2 | 1 | -- | 13.1 | 94 | .4 | 12 | 8.3 | 1.0 |
| 22... | 0800 | 1.4 | 10 | 1 | -- | 13.0 | 93 | 1.1 | 11 | 8.2 | 1.4 |
| 29... | 0800 | 2.1 | 12 | 1 | -- | 13.1 | 95 | .4 | 11 | 8.3 | 1.0 |
| FEB. | | | | | | | | | | | |
| 05... | 0800 | 1.9 | 10 | 1 | 269 | 13.4 | 96 | .5 | 9 | 8.2 | 1.3 |
| 12... | 0800 | .6 | 11 | 1 | -- | 13.3 | 92 | .5 | 9 | 8.3 | 1.0 |
| 19... | 0800 | .2 | 4 | 1 | -- | 13.8 | 94 | .2 | 9 | 8.3 | 1.0 |
| 26... | 0800 | .2 | 11 | 1 | -- | 14.0 | 96 | .4 | 8 | 8.3 | 1.1 |
| MAR. | | | | | | | | | | | |
| 02... | 0800 | -- | -- | -- | -- | -- | -- | -- | 10 | -- | -- |
| 05... | 0800 | 1.1 | 8 | 1 | -- | 13.7 | 96 | .5 | 10 | 8.3 | 1.1 |
| 12... | 0800 | 2.5 | 5 | 10 | 302 | 13.0 | 96 | .7 | 10 | 8.2 | 1.4 |
| 19... | 0800 | 2.1 | 10 | 1 | -- | 13.6 | 98 | .4 | 7 | 8.3 | 1.1 |
| 26... | 0800 | 2.2 | 5 | 1 | -- | 13.1 | 95 | .4 | 7 | 8.4 | .8 |
| APR. | | | | | | | | | | | |
| 02... | 0800 | 2.7 | 2 | 1 | -- | 13.0 | 96 | .3 | 40 | 8.4 | .8 |
| 03... | 1600 | -- | -- | -- | 267 | -- | -- | -- | -- | -- | -- |
| 09... | 0800 | 3.0 | 13 | 1 | -- | 12.7 | 94 | .5 | 8 | 8.4 | .8 |
| 16... | 0800 | 2.2 | 13 | 1 | -- | 11.1 | 80 | .7 | 6 | 8.3 | 1.1 |
| 30... | 0800 | 5.7 | 7 | 1 | -- | 12.1 | 96 | .7 | 8 | 8.4 | .8 |
| MAY | | | | | | | | | | | |
| 07... | 0800 | 6.6 | 8 | 1 | -- | 11.1 | 91 | 2.6 | 10 | 8.4 | .9 |
| 07... | 1100 | -- | -- | -- | 276 | -- | -- | -- | -- | -- | -- |
| 14... | 0800 | 6.4 | 4 | -- | -- | 11.6 | 94 | .9 | 5 | 8.4 | .9 |
| 21... | 0800 | 6.4 | 3 | 1 | -- | 11.8 | 97 | .8 | 9 | 8.4 | .9 |
| 29... | 0800 | 8.3 | 5 | 1 | -- | 11.3 | 95 | .7 | 10 | 8.3 | 1.0 |
| JUNE | | | | | | | | | | | |
| 04... | 0800 | 8.0 | 2 | 1 | -- | 11.3 | 95 | .2 | 10 | 8.4 | .8 |
| 04... | 1240 | -- | -- | -- | 273 | -- | -- | -- | -- | -- | -- |
| 11... | 0800 | 7.0 | 2 | 1 | -- | 11.3 | 93 | .5 | 9 | 8.2 | 1.3 |
| 18... | 0800 | 6.7 | 3 | -- | -- | 11.3 | 93 | .5 | 10 | 8.2 | 1.3 |
| 25... | 0800 | 6.4 | 2 | -- | -- | 11.2 | -- | .4 | 10 | 8.2 | -- |

04086040 LAKE MICHIGAN AT MILWAUKEE, WIS.--Continued

| DATE | ALKALINITY AS CACO3 (MG/L) | CARBONATE ALKALINITY AS CACO3 (MG/L) | BICARBONATE (HCO3) (MG/L) | CARBONATE (CO3) (MG/L) | ORGANIC NITROGEN (N) (MG/L) | AMMONIA NITROGEN (N) (MG/L) | TOTAL NITRATE (N) (MG/L) | PHOSPHATE (PO4) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | DISSOLVED PHOSPHORUS (P) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | |
| 02... | 106 | 0 | 129 | 0 | .20 | .04 | .20 | -- | .03 | .01 |
| 09... | 104 | 0 | 127 | 0 | -- | -- | .23 | .00 | -- | -- |
| 16... | 107 | 0 | 130 | 0 | -- | -- | .30 | .00 | -- | -- |
| 23... | 103 | 0 | 126 | 0 | -- | -- | .10 | .00 | -- | -- |
| 30... | 111 | 1 | 132 | 2 | -- | -- | .36 | .00 | -- | -- |
| NOV. | | | | | | | | | | |
| 06... | 109 | -- | -- | -- | .10 | .03 | .20 | .00 | .14 | .09 |
| 13... | -- | 0 | -- | 0 | -- | -- | .25 | -- | -- | -- |
| 20... | 104 | 0 | 127 | 0 | -- | -- | -- | .00 | -- | -- |
| 27... | 106 | 2 | 123 | 3 | -- | -- | .23 | -- | -- | -- |
| DEC. | | | | | | | | | | |
| 04... | 107 | 2 | 127 | 3 | .04 | .00 | .20 | .00 | .20 | .10 |
| 11... | 103 | 1 | 122 | 2 | -- | -- | .27 | .00 | -- | -- |
| 18... | 103 | 0 | 126 | 0 | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN. | | | | | | | | | | |
| 02... | 107 | 0 | 131 | 0 | .05 | .00 | .29 | -- | .04 | .03 |
| 15... | 106 | 0 | 129 | 0 | -- | -- | .27 | -- | -- | -- |
| 22... | 117 | 0 | 143 | 0 | -- | -- | .43 | .10 | -- | -- |
| 29... | 106 | 0 | 129 | 0 | -- | -- | .38 | .00 | -- | -- |
| FEB. | | | | | | | | | | |
| 05... | 109 | 0 | 133 | 0 | .21 | .02 | .30 | .00 | .05 | .02 |
| 12... | 105 | 0 | 128 | 0 | -- | -- | .33 | .10 | -- | -- |
| 19... | 105 | 0 | 128 | 0 | -- | -- | .25 | .00 | -- | -- |
| 26... | 111 | 0 | 135 | 0 | -- | -- | .34 | .00 | -- | -- |
| MAR. | | | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 109 | 0 | 133 | 0 | -- | -- | .38 | .00 | -- | -- |
| 12... | 110 | 0 | 134 | 0 | .27 | .04 | .30 | .00 | .04 | .02 |
| 19... | 111 | 0 | 135 | 0 | -- | -- | .27 | .00 | -- | -- |
| 26... | 109 | 4 | 119 | 7 | -- | -- | .52 | .00 | -- | -- |
| APR. | | | | | | | | | | |
| 02... | 104 | -- | 127 | -- | -- | -- | .30 | .00 | -- | -- |
| 03... | -- | -- | -- | -- | .06 | .05 | .30 | -- | .04 | .12 |
| 09... | 109 | 2 | 127 | 3 | -- | -- | .25 | .00 | -- | -- |
| 16... | 109 | 0 | 133 | 0 | -- | -- | .36 | .00 | -- | -- |
| 30... | 107 | 3 | 121 | 5 | -- | -- | .11 | .00 | -- | -- |
| MAY | | | | | | | | | | |
| 07... | 112 | 4 | 123 | 7 | -- | -- | .36 | .00 | -- | -- |
| 07... | -- | -- | -- | -- | .32 | .08 | .20 | -- | .03 | .02 |
| 14... | 113 | 1 | 134 | 2 | -- | -- | -- | -- | -- | -- |
| 21... | 112 | 2 | 131 | 3 | -- | -- | .16 | .00 | -- | -- |
| 29... | 106 | 0 | 129 | 0 | -- | -- | -- | .00 | -- | -- |
| JUNE | | | | | | | | | | |
| 04... | 107 | 3 | 121 | 5 | -- | -- | .23 | .00 | -- | -- |
| 04... | -- | -- | -- | -- | .28 | .12 | .20 | -- | .09 | .09 |
| 11... | 108 | 0 | 132 | 0 | -- | -- | -- | -- | -- | -- |
| 18... | 108 | 0 | 132 | 0 | -- | -- | -- | -- | -- | -- |
| 25... | 105 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

04086040 LAKE MICHIGAN AT MILWAUKEE, WIS.--Continued

| DATE | HARDNESS (CA,MG) (MG/L) | NON-CARBONATE HARDNESS (MG/L) | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | DISSOLVED SILICA (SIO2) (MG/L) | IMMEDIATE COLIFORM (COL. PER 100 ML) | METHYLENE BLUE ACTIVE SUBSTANCE (MG/L) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (TONS PER AC-FT) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | |
| 02... | 131 | 26 | 8.5 | 20 | .2 | .8 | 1300 | .0 | 144 | .20 |
| 09... | 131 | 27 | 8.7 | 20 | .2 | .5 | -- | -- | 156 | .21 |
| 16... | 142 | 36 | 10 | 21 | .1 | 2.3 | 150 | -- | 170 | .23 |
| 23... | 132 | 29 | 8.3 | 22 | .2 | 1.0 | 29 | -- | 150 | .20 |
| 30... | 137 | 26 | 9.2 | 33 | .4 | 1.2 | 1100 | -- | 168 | .23 |
| NOV. | | | | | | | | | | |
| 06... | 138 | 29 | 8.6 | -- | .2 | 1.0 | 350 | .0 | 168 | .23 |
| 13... | 136 | -- | 8.2 | 24 | .2 | 1.1 | 60 | -- | 165 | .22 |
| 20... | 134 | 30 | 8.0 | -- | -- | -- | 52 | -- | 154 | .21 |
| 27... | 128 | 22 | 7.8 | 19 | .2 | -- | 7 | -- | 144 | .20 |
| DEC. | | | | | | | | | | |
| 04... | 133 | 24 | 8.0 | 20 | .2 | 1.0 | 14 | .0 | 146 | .20 |
| 11... | 132 | 28 | 7.8 | 21 | .2 | -- | 30 | -- | 153 | .21 |
| 18... | -- | -- | 8.3 | 19 | -- | -- | 35 | -- | 154 | .21 |
| 26... | -- | -- | -- | 21 | -- | -- | 13 | -- | 151 | .21 |
| JAN. | | | | | | | | | | |
| 02... | 133 | 26 | 8.5 | 21 | -- | -- | 1 | .0 | 157 | .21 |
| 15... | 134 | 28 | 9.4 | 20 | .1 | 1.0 | 39 | -- | 151 | .21 |
| 22... | 150 | 33 | 16 | 26 | .2 | 1.7 | 12000 | -- | 183 | .25 |
| 29... | 133 | 28 | 8.3 | 21 | .1 | 1.3 | 140 | -- | 150 | .21 |
| FEB. | | | | | | | | | | |
| 05... | 133 | 24 | 8.0 | 22 | .1 | 1.3 | 180 | .0 | 156 | .21 |
| 12... | 134 | 29 | 8.0 | 20 | .2 | 1.3 | 80 | -- | 143 | .19 |
| 19... | 134 | 29 | 8.3 | 18 | .1 | 1.3 | 71 | -- | 151 | .21 |
| 26... | 136 | 26 | 9.0 | 22 | .2 | 1.2 | 100 | -- | 161 | .22 |
| MAR. | | | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05... | 137 | 28 | 10 | 23 | .2 | 1.1 | 29 | -- | 161 | .22 |
| 12... | 144 | 34 | 14 | 24 | .2 | 1.5 | 1500 | .0 | 156 | .21 |
| 19... | 133 | 22 | 8.1 | 21 | .1 | 1.0 | 54 | -- | 154 | .21 |
| 26... | 137 | 28 | 8.5 | 21 | .1 | 1.0 | 31 | -- | 143 | .19 |
| APR. | | | | | | | | | | |
| 02... | 135 | 31 | 8.0 | 22 | .2 | 1.0 | -- | -- | 154 | .21 |
| 03... | -- | -- | -- | -- | -- | -- | -- | .0 | -- | -- |
| 09... | 137 | 28 | 8.3 | 19 | .1 | .8 | 70 | -- | 148 | .20 |
| 16... | 134 | 25 | 8.9 | 21 | .2 | .8 | 300 | -- | -- | -- |
| 30... | 137 | 29 | 9.0 | 21 | .1 | .5 | 80 | -- | 144 | .20 |
| MAY | | | | | | | | | | |
| 07... | 139 | 26 | 11 | 23 | .2 | .7 | 770 | -- | 166 | .23 |
| 07... | -- | -- | -- | -- | -- | -- | -- | .0 | -- | -- |
| 14... | 135 | 22 | 10 | 21 | .2 | .8 | 44 | -- | 150 | .21 |
| 21... | 136 | 23 | 9.4 | -- | .1 | .8 | 60 | -- | 143 | .22 |
| 29... | 131 | 25 | 8.4 | 20 | .2 | .8 | 110 | -- | 151 | .21 |
| JUNE | | | | | | | | | | |
| 04... | 133 | 26 | 8.2 | 20 | .1 | .9 | 55 | -- | 146 | .20 |
| 04... | -- | -- | -- | -- | .1 | -- | -- | .0 | -- | -- |
| 11... | 136 | 27 | -- | 20 | .2 | -- | 460 | -- | 154 | .21 |
| 18... | 134 | 27 | 8.5 | 19 | -- | -- | 200 | -- | 151 | .21 |
| 25... | 133 | 28 | 8.3 | 20 | .1 | -- | 3500 | -- | 153 | .21 |

## 04087000 MILWAUKEE RIVER AT MILWAUKEE, WIS.
(National Stream Quality Accounting Network Station)

LOCATION.--Lat 43°06'00", long 87°54'32", in NE¼ sec.5, T.7 N., R.22 E., Milwaukee County, temperature recorder at gaging station, on left bank near northeast limits of Milwaukee in Estabrook Park, 2,000 ft (609.6 m) downstream from Port Washington Road bridge and 6.6 mi (10.6 km) upstream from mouth.
DRAINAGE AREA.--686 mi² (1,777 km²).
PERIOD OF RECORD.--Chemical analyses: December 1972 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | TEMPERATURE (DEG C) | DISSOLVED SILICA (SIO2) (MG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) | SODIUM ADSORPTION RATIO | PERCENT SODIUM | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | CARBONATE (CO3) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN. 25... | 1230 | -- | .5 | 8.2 | 58 | 29 | 15 | .4 | 11 | 4.8 | 248 | 0 |
| FEB. 22... | 1400 | -- | -- | 12 | 98 | 37 | 31 | .7 | 14 | 3.0 | 378 | 0 |
| MAR. 20... | 1000 | -- | 4.5 | 5.8 | 67 | 28 | 14 | .4 | 18 | 3.0 | 278 | 0 |
| APR. 30... | 1300 | 3060 | 10.5 | 1.9 | 64 | 36 | 20 | .5 | 12 | 3.2 | 298 | 0 |
| MAY 24... | 1030 | 745 | 16.0 | 1.7 | 68 | 40 | 16 | .4 | 9 | 2.4 | 334 | 0 |
| JUNE 19... | 1200 | 642 | 22.5 | 11 | 66 | 43 | 13 | .3 | 7 | 1.9 | 348 | 0 |
| JULY 31... | 1000 | -- | 24.0 | 2.4 | 48 | 24 | 19 | .6 | 16 | 2.4 | 222 | 0 |
| AUG. 14... | 1000 | -- | 24.0 | 2.6 | 55 | 34 | 27 | .7 | 17 | 3.3 | 292 | 0 |
| SEP. 19... | 1430 | -- | 16.0 | 6.9 | 59 | 35 | 24 | .6 | 15 | 3.2 | 298 | 0 |

| DATE | DISSOLVED SULFATE (SO4) (MG/L) | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | TOTAL NITRATE (N) (MG/L) | TOTAL KJELDAHL NITROGEN (N) (MG/L) | TOTAL NITRATE (NO3) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | TOTAL PHOSPHORUS (PO4) (MG/L) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | DISSOLVED SOLIDS (TONS PER AC-FT) | HARDNESS (CA,MG) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN. 25... | 37 | 34 | .2 | 1.3 | .11 | 6.0 | .20 | .62 | 325 | 312 | .44 | 260 |
| FEB. 22... | 48 | 50 | .2 | 1.3 | 1.5 | 6.0 | .23 | .72 | 478 | 467 | .65 | 380 |
| MAR. 20... | 37 | 30 | .3 | .78 | 1.2 | 3.1 | .21 | .64 | 338 | 322 | .46 | 280 |
| APR. 30... | 39 | 41 | .3 | .88 | 1.3 | 3.6 | .50 | 1.5 | 394 | 352 | .54 | 310 |
| MAY 24... | 34 | 34 | .3 | .80 | 1.2 | 3.6 | .15 | .45 | 400 | 361 | .54 | 330 |
| JUNE 19... | 28 | 32 | .4 | .70 | 1.9 | 3.2 | .29 | .89 | 388 | 384 | .53 | 340 |
| JULY 31... | 31 | 34 | .3 | .10 | 1.7 | .40 | .23 | .72 | 286 | 278 | .39 | 220 |
| AUG. 14... | 35 | 47 | .3 | .10 | 1.7 | .40 | .29 | .89 | 356 | 343 | .48 | 280 |
| SEP. 19... | 44 | 38 | .3 | .38 | .86 | 1.5 | .17 | .52 | 372 | 358 | .51 | 290 |

04087000 MILWAUKEE RIVER AT MILWAUKEE, WIS.--Continued

| DATE | NON-CARBONATE HARDNESS (MG/L) | ALKALINITY AS CACO3 (MG/L) | CARBON DIOXIDE (CO2) (MG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) | TURBIDITY (JTU) | PHYTOPLANKTON TOTAL COUNT (CELLS/ML) | IMMEDIATE COLIFORM (COL. PER 100 ML) | FECAL COLIFORM (COL. PER 100 ML) | STREPTOCOCCI (COLONIES PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|---|
| JAN. | | | | | | | | | | |
| 25... | 58 | 203 | 10 | 295 | 7.6 | 6 | 0 | -- | -- | -- |
| FEB. | | | | | | | | | | |
| 22... | 73 | 303 | 9.4 | 425 | 7.8 | 4 | -- | 74000 | 4800 | 1200 |
| MAR. | | | | | | | | | | |
| 20... | 56 | 228 | 6.9 | 340 | 7.7 | 4 | -- | 94000 | 30000 | -- |
| APR. | | | | | | | | | | |
| 30... | 64 | 244 | 19 | 470 | 7.4 | 10 | 520 | 660000 | 838000 | 660000 |
| MAY | | | | | | | | | | |
| 24... | 68 | 274 | 5.3 | 550 | 8.0 | 1 | 4400 | -- | 1600 | 18000 |
| JUNE | | | | | | | | | | |
| 19... | 56 | 285 | 3.5 | 565 | 6.2 | -- | 9100 | -- | 25000 | 82000 |
| JULY | | | | | | | | | | |
| 31... | 38 | 182 | 11 | 470 | 7.5 | 25 | 4400 | -- | 49000 | 8700 |
| AUG. | | | | | | | | | | |
| 14... | 37 | 239 | 7.4 | 597 | 7.8 | 10 | 5000 | -- | -- | -- |
| SEP. | | | | | | | | | | |
| 19... | 49 | 244 | 3.1 | 525 | 8.1 | 10 | 2200 | 28000 | 960 | -- |

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | TOTAL NITROGEN IN BOTTOM DEPOSITS (N) (MG/KG) | TOTAL NITRITE PLUS NITRATE IN BOT. DEP. (MG/KG) | TOTAL PHOSPHORUS IN BOTTOM DEPOSITS (MG/KG) | TOTAL ORGANIC CARBON (C) (MG/L) | ORGANIC CARBON IN BED MATERIAL (C) (G/KG) | DISSOLVED ARSENIC (AS) (UG/L) | TOTAL ARSENIC (AS) (UG/L) | TOTAL ARSENIC IN BOTTOM DEPOSITS (UG/G) |
|---|---|---|---|---|---|---|---|---|---|---|
| JAN. | | | | | | | | | | |
| 25... | 1230 | -- | -- | -- | -- | -- | -- | 0 | 0 | -- |
| JUNE | | | | | | | | | | |
| 19... | 1200 | 642 | -- | -- | -- | -- | -- | 14 | 14 | -- |
| AUG. | | | | | | | | | | |
| 14... | 1000 | -- | -- | -- | -- | -- | -- | 9 | 9 | -- |
| 15... | 1000 | 165 | 380 | .9 | 280 | 16 | 1.5 | -- | -- | 2 |

| DATE | DISSOLVED CADMIUM (CD) (UG/L) | TOTAL CADMIUM (CD) (UG/L) | TOTAL CADMIUM IN BOTTOM DEPOSITS (UG/G) | TOTAL CHROMIUM IN BOTTOM DEPOSITS (UG/G) | DISSOLVED CHROMIUM (CR) (UG/L) | TOTAL CHROMIUM (CR) (UG/L) | DISSOLVED COBALT (CO) (UG/L) | TOTAL COBALT (CO) (UG/L) | TOTAL COBALT IN BOTTOM DEPOSITS (UG/G) | DISSOLVED COPPER (CU) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| JAN. | | | | | | | | | | |
| 25... | 0 | 0 | -- | -- | 0 | 3 | 0 | 1 | -- | 4 |
| JUNE | | | | | | | | | | |
| 19... | 0 | 0 | -- | -- | 0 | 0 | 0 | 1 | -- | 9 |
| AUG. | | | | | | | | | | |
| 14... | 0 | 0 | -- | -- | 0 | 2 | 1 | 1 | -- | 9 |
| 15... | -- | -- | 3 | 32 | -- | -- | -- | -- | 10 | -- |

B Results based on colony count outside the acceptable range (non-ideal colony count).

04087000 MILWAUKEE RIVER AT MILWAUKEE, WIS.--Continued

| DATE | TOTAL COPPER (CU) (UG/L) | TOTAL COPPER IN BOTTOM DE-POSITS (UG/G) | TOTAL IRON (FE) (UG/L) | DIS-SOLVED IRON (FE) (UG/L) | DIS-SOLVED LEAD (PB) (UG/L) | TOTAL LEAD (PB) (UG/L) | TOTAL LEAD IN BOTTOM DE-POSITS (UG/G) | TOTAL MANGA-NESE IN BOTTOM DE-POSITS (UG/G) | TOTAL MAN-GANESE (MN) (UG/L) | DIS-SOLVED MAN-GANESE (MN) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| JAN. | | | | | | | | | | |
| 25... | 5 | -- | 380 | 140 | 0 | 1 | -- | -- | 38 | 38 |
| JUNE | | | | | | | | | | |
| 19... | 18 | -- | 280 | 70 | 4 | 4 | -- | -- | 75 | 0 |
| AUG. | | | | | | | | | | |
| 14... | 15 | -- | 480 | 20 | 7 | 12 | -- | -- | 180 | 30 |
| 15... | -- | 23 | -- | -- | -- | -- | 95 | 230 | -- | -- |

| DATE | DIS-SOLVED ZINC (ZN) (UG/L) | TOTAL ZINC (ZN) (UG/L) | TOTAL ZINC IN BOTTOM DE-POSITS (UG/G) | DIS-SOLVED SELE-NIUM (SE) (UG/L) | TOTAL SELE-NIUM (SE) (UG/L) | TOTAL SELE-NIUM IN BOTTOM DE-POSITS (UG/G) | DIS-SOLVED MERCURY (HG) (UG/L) | TOTAL MERCURY (HG) (UG/L) | TOTAL MERCURY IN BOTTOM DE-POSITS (UG/G) |
|---|---|---|---|---|---|---|---|---|---|
| JAN. | | | | | | | | | |
| 25... | 60 | 60 | -- | 2 | 3 | -- | .5 | .5 | -- |
| JUNE | | | | | | | | | |
| 19... | 20 | 60 | -- | 0 | 0 | -- | <.5 | <.5 | -- |
| AUG. | | | | | | | | | |
| 14... | 60 | 70 | -- | 0 | 0 | -- | <.5 | 1.2 | -- |
| 15... | -- | -- | 87 | -- | -- | 0 | -- | -- | 3.0 |

| DATE | TIME | TEMPER-ATURE (DEG C) | INSTAN-TANEOUS DIS-CHARGE (CFS) | SUS-PENDED SEDI-MENT (MG/L) | SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY) |
|---|---|---|---|---|---|
| FEB. | | | | | |
| 06... | 1100 | .0 | 1080 | 18 | 52 |
| APR. | | | | | |
| 30... | 1300 | 10.5 | 3060 | 39 | 322 |
| MAY | | | | | |
| 24... | 1030 | 16.0 | 745 | 30 | 60 |
| 30... | 2005 | -- | 318 | 44 | 38 |
| JUNE | | | | | |
| 19... | 1200 | 22.5 | 642 | 71 | 123 |
| 20... | 1615 | 24.0 | 550 | 28 | 42 |
| JULY | | | | | |
| 12... | 1555 | 26.0 | 196 | 17 | 9.0 |
| AUG. | | | | | |
| 01... | 1530 | 23.0 | 184 | 28 | 14 |
| 15... | 1000 | 24.0 | 165 | 41 | 18 |
| 21... | 1540 | -- | 151 | 47 | 19 |
| SEP. | | | | | |
| 19... | 1530 | -- | 225 | 13 | 7.9 |

## 05400970 WISCONSIN RIVER AT NEKOOSA, WIS.

LOCATION.--Lat 44°18'52", long 89°53'18", in SE¼ sec.10, T.21 N., R.5 E., Wood County, at bridge on Highway 73 at Nekoosa, and at mile 201.5 (km 324.2).
DRAINAGE AREA.--5,500 mi² (14,245 km²).
PERIOD OF RECORD.--Chemical analyses: October 1972 to June 1973 (discontinued).
REMARKS.--Station run in cooperation with Environmental Protection Agency.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | TEMPERATURE (DEG C) | TURBIDITY (JTU) | SPECIFIC CONDUCTANCE (MICROMHOS) | DISSOLVED OXYGEN (MG/L) | PERCENT SATURATION | BIOCHEMICAL OXYGEN DEMAND (MG/L) | PH (UNITS) | TOTAL RESIDUE (MG/L) | LOSS ON IGNITION (MG/L) | TOTAL NONFILTRABLE RESIDUE (MG/L) | VOL. NONSETTLEABLE RESIDUE (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | | |
| 11... | 1030 | 12.0 | 5 | 162 | 9.4 | 87 | 2.5 | 7.1 | 132 | 78 | 21 | 78 |
| NOV. | | | | | | | | | | | | |
| 09... | 1230 | 5.0 | 5 | 128 | 12.4 | 97 | <3.1 | 7.3 | 103 | -- | 3 | 38 |
| DEC. | | | | | | | | | | | | |
| 13... | 0835 | .0 | 6 | 164 | 8.8 | 60 | <8.5 | 7.5 | 172 | 69 | 19 | -- |
| JAN. | | | | | | | | | | | | |
| 09... | 1015 | .0 | 5 | 164 | 10.0 | 74 | 8.4 | 6.4 | 260 | 132 | 26 | -- |
| FEB. | | | | | | | | | | | | |
| 13... | 1300 | 1.0 | 5 | 85 | -- | -- | 3.0 | 7.6 | 128 | 52 | 0 | -- |
| MAR. | | | | | | | | | | | | |
| 08... | 1400 | 1.0 | 10 | 134 | 13.8 | 97 | 5.4 | 6.9 | 148 | -- | 42 | 42 |
| APR. | | | | | | | | | | | | |
| 17... | 1100 | 7.0 | 10 | 86 | 12.0 | 98 | -- | 7.8 | 124 | 38 | 54 | -- |
| MAY | | | | | | | | | | | | |
| 29... | 0900 | 13.0 | 15 | 95 | 9.5 | 90 | 2.4 | 6.5 | 130 | 17 | 50 | -- |
| JUNE | | | | | | | | | | | | |
| 29... | 1000 | 20.5 | 5 | 148 | 5.0 | 58 | 5.8 | 6.5 | 120 | 28 | 18 | -- |

| DATE | ORGANIC NITROGEN (N) (MG/L) | AMMONIA NITROGEN (N) (MG/L) | TOTAL NITRATE (N) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | DISSOLVED PHOSPHORUS (P) (MG/L) | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) | IMMEDIATE COLIFORM (COL. PER 100 ML) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (TONS PER AC-FT) | DISSOLVED MERCURY (HG) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 11... | .82 | .10 | .50 | .16 | .10 | 9.0 | 15 | 12000 | 111 | .15 | <.5 |
| NOV. | | | | | | | | | | | |
| 09... | .91 | .02 | .30 | .59 | .34 | 9.0 | 29 | 6200 | 100 | .14 | <.5 |
| DEC. | | | | | | | | | | | |
| 13... | .78 | .09 | .30 | .19 | .03 | 12 | 22 | 38000 | 153 | .21 | .9 |
| JAN. | | | | | | | | | | | |
| 09... | .87 | .10 | .30 | .12 | .06 | 18 | 27 | 78000 | 234 | .32 | <.5 |
| FEB. | | | | | | | | | | | |
| 13... | .24 | .06 | .60 | .07 | .05 | 12 | 15 | 3500 | 128 | .17 | <.5 |
| MAR. | | | | | | | | | | | |
| 08... | 1.1 | .15 | .70 | .26 | .08 | 8.0 | 13 | -- | 106 | .14 | -- |
| APR. | | | | | | | | | | | |
| 17... | .99 | .04 | .30 | .67 | .27 | 10 | 10 | 2000 | 70 | .10 | -- |
| MAY | | | | | | | | | | | |
| 29... | .87 | .21 | .30 | .60 | .55 | 6.0 | 15 | 4300 | 80 | .11 | 1.3 |
| JUNE | | | | | | | | | | | |
| 29... | .68 | .22 | .30 | .09 | .05 | 10 | 14 | 100000 | 102 | .14 | <.5 |

## 05407470 KICKAPOO RIVER AT ONTARIO, WIS.

LOCATION.--Lat 43°43'14", long 90°35'15", NW¼ sec.2, T.14 N., R.2 W., Vernon County, at bridge on State Highway 33, at Ontario.
DRAINAGE AREA.--116 mi² (300 km²).
PERIOD OF RECORD.--Chemical analyses: December 1972 to September 1973.
Water temperatures: December 1972 to September 1973.
Sediment records: December 1972 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTAN-TANEOUS DIS-CHARGE (CFS) | DIS-SOLVED SILICA (SIO2) (MG/L) | TOTAL IRON (FE) (UG/L) | DIS-SOLVED IRON (FE) (UG/L) | TOTAL MAN-GANESE (MN) (UG/L) | DIS-SOLVED MANGANESE (MN) (UG/L) | DIS-SOLVED CAL-CIUM (CA) (MG/L) | DIS-SOLVED MAG-NE-SIUM (MG) (MG/L) | DIS-SOLVED SODIUM (NA) (MG/L) | SODIUM AD-SORP-TION RATIO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. 13... | 1530 | 83 | 9.6 | -- | 60 | -- | 160 | 43 | 35 | 3.2 | .1 |
| JAN. 11... | 1315 | -- | 12 | 280 | 250 | 170 | 170 | 67 | 23 | 3.2 | .1 |
| FEB. 09... | 1300 | 68 | 11 | -- | 80 | -- | 460 | 58 | 28 | 3.3 | .1 |
| MAR. 09... | 1000 | 107 | 9.1 | 90 | 70 | 120 | 120 | 55 | 13 | 2.6 | .1 |
| APR. 19... | 1100 | 524 | 9.1 | -- | 60 | -- | 40 | 39 | 21 | 2.9 | .1 |
| JUNE 06... | 1700 | 102 | 7.1 | -- | 10 | -- | 50 | 47 | 26 | 2.6 | .1 |
| JULY 27... | 1300 | 69 | 11 | -- | 50 | -- | 94 | 53 | 25 | 2.6 | .1 |
| SEP. 05... | 1415 | 314 | 11 | -- | 40 | -- | 55 | 51 | 29 | 3.1 | .1 |

| DATE | PERCENT SODIUM | DIS-SOLVED PO-TAS-SIUM (K) (MG/L) | ALKA-LINITY AS CACO3 (MG/L) | BICAR-BONATE (HCO3) (MG/L) | CAR-BONATE (CO3) (MG/L) | DIS-SOLVED SULFATE (SO4) (MG/L) | DIS-SOLVED CHLO-RIDE (CL) (MG/L) | DIS-SOLVED FLUO-RIDE (F) (MG/L) | DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) | DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) | DIS-SOLVED SOLIDS (TONS PER AC-FT) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. 13... | 3 | 1.4 | 213 | 260 | 0 | 19 | 10 | .1 | 240 | 255 | .33 |
| JAN. 11... | 3 | 1.5 | 233 | 284 | 0 | 19 | 8.0 | .1 | 271 | 270 | .37 |
| FEB. 09... | 3 | 2.0 | 233 | 284 | 0 | 19 | 8.0 | .1 | 270 | 274 | .37 |
| MAR. 09... | 3 | 3.8 | 166 | 202 | 0 | 16 | 6.0 | .2 | 205 | 213 | .28 |
| APR. 19... | 3 | 2.6 | 161 | 196 | 0 | 17 | 6.0 | .1 | 196 | 199 | .27 |
| JUNE 06... | 3 | 1.7 | 210 | 256 | 0 | 14 | 6.0 | .1 | 220 | 236 | .30 |
| JULY 27... | 3 | 2.0 | 215 | 262 | 0 | 15 | 6.0 | .2 | 245 | 248 | .33 |
| SEP. 05... | 3 | 2.2 | 221 | 270 | 0 | 15 | 5.0 | .2 | 262 | 252 | .36 |

05407470 KICKAPOO RIVER AT ONTARIO, WIS.--Continued

| DATE | HARDNESS (CaCO3) (MG/L) | NONCARBONATE HARDNESS (MG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) | TEMPERATURE (DEG C) | COLOR (PLATINUM-COBALT UNITS) | NITRITE NITROGEN (N) (MG/L) | TOTAL KJELDAHL NITROGEN (N) (MG/L) | TOTAL PHOSPHORUS (PO4) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | CARBON DIOXIDE (CO2) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 13... | 250 | 40 | 410 | 8.1 | .0 | 5 | 1.2 | .11 | .20 | .06 | 1.3 |
| JAN. | | | | | | | | | | | |
| 11... | 260 | 28 | 438 | 7.7 | .0 | 5 | 1.0 | .11 | .24 | .07 | 9.1 |
| FEB. | | | | | | | | | | | |
| 09... | 261 | 26 | 427 | 8.2 | 1.0 | 5 | .80 | .34 | .23 | .09 | 2.9 |
| MAR. | | | | | | | | | | | |
| 09... | 190 | 24 | 322 | 7.6 | 4.0 | 15 | 1.2 | .87 | .52 | .17 | 8.1 |
| APR. | | | | | | | | | | | |
| 14... | 180 | 24 | 320 | 7.8 | 11.5 | 10 | 1.1 | .65 | .45 | .14 | 5.0 |
| JUNE | | | | | | | | | | | |
| 06... | 220 | 14 | 350 | 8.0 | 19.5 | 20 | .40 | .59 | .69 | .22 | 4.1 |
| JULY | | | | | | | | | | | |
| 27... | 240 | 20 | 356 | 7.7 | 23.5 | 5 | .70 | .67 | 1.1 | .36 | 8.4 |
| SEP. | | | | | | | | | | | |
| 05... | 240 | 24 | 418 | 7.6 | 20.0 | 5 | .50 | .17 | .26 | .08 | 11 |

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SPECIFIC CONDUCTANCE (MICROMHOS) | TURBIDITY (JTU) | PH (UNITS) | BIOCHEMICAL OXYGEN DEMAND (MG/L) | DISSOLVED OXYGEN (MG/L) | PERCENT SATURATION | FECAL COLIFORM (COL. PER 100 ML) | FECAL COLIFORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 07... | 1400 | .0 | -- | 432 | 3 | 8.5 | 1.2 | 14.6 | 101 | 28000 | 3600 |
| 13... | 1530 | .0 | 43 | 416 | -- | 8.1 | <1.2 | 14.0 | 96 | 25000 | 2300 |
| 22... | 1430 | .5 | 62 | 400 | 2 | 8.0 | 2.4 | 12.5 | 87 | 30000 | 700 |
| 29... | 1100 | .5 | 44 | 340 | 3 | 8.3 | .9 | 15.4 | 105 | 15000 | 210 |
| JAN. | | | | | | | | | | | |
| 03... | 1215 | .0 | 446 | 383 | 2 | 8.5 | 2.8 | 14.4 | 99 | 25000 | 860 |
| 11... | 1315 | .0 | -- | 438 | -- | 7.7 | -- | 10.1 | 69 | -- | -- |
| 12... | 1130 | .5 | -- | -- | -- | -- | -- | -- | -- | 13000 | 800 |
| 18... | 1615 | 1.0 | 440 | 188 | -- | 7.4 | 7.8 | 11.5 | 81 | 750000 | 3200 |
| 23... | 1130 | .5 | 581 | 391 | 3 | 8.2 | 3.7 | 13.8 | 96 | 28000 | 600 |
| FEB. | | | | | | | | | | | |
| 02... | 1315 | 1.0 | 118 | 176 | -- | 8.1 | 4.3 | 13.3 | 94 | 170000 | 1300 |
| 09... | 1300 | 1.0 | 88 | 427 | 7 | 8.2 | .7 | 13.2 | 97 | 1500 | <10 |
| 16... | 1200 | 1.0 | 59 | 406 | 4 | 8.1 | 1.3 | 12.8 | 94 | 600 | 10 |
| 21... | 0945 | .5 | 44 | 434 | 8 | 7.8 | 2.0 | 13.4 | 97 | 5800 | 10 |
| MAR. | | | | | | | | | | | |
| 02... | 1300 | 1.5 | 152 | 234 | 15 | 7.5 | 7.3 | 12.5 | 88 | -- | -- |
| 09... | 1000 | 4.0 | 107 | 322 | 9 | 7.6 | 2.2 | 12.5 | 96 | 11000 | 400 |
| 15... | 1330 | 7.5 | 234 | 294 | 4 | 7.4 | 1.3 | 11.9 | 98 | 25000 | 480 |
| 23... | 1300 | 6.0 | 90 | 379 | 3 | 7.1 | 1.0 | 13.0 | 10 | -- | -- |
| 29... | 1230 | 9.0 | 282 | 383 | 7 | 6.9 | 2.6 | 9.0 | 78 | -- | -- |
| APR. | | | | | | | | | | | |
| 06... | 1230 | 8.0 | 84 | 378 | 3 | 8.5 | 1.0 | 12.2 | 103 | 2300 | B92 |
| 13... | 1330 | 6.0 | 114 | 343 | 5 | 8.0 | .8 | 12.2 | 98 | -- | 72 |
| 19... | 1100 | 11.5 | 524 | 320 | -- | 7.8 | -- | -- | -- | 5100 | B360 |
| 20... | 1100 | 16.0 | 485 | 394 | 6 | -- | 1.1 | -- | -- | -- | -- |
| 24... | 1300 | 12.0 | 148 | 354 | 7 | 7.6 | 1.1 | 10.8 | 100 | B460 | 420 |
| MAY | | | | | | | | | | | |
| 04... | 1300 | 8.5 | 204 | 319 | 6 | 7.2 | .8 | 10.8 | 92 | 14000 | 350 |
| 10... | 1500 | 14.0 | 200 | 334 | 6 | -- | .6 | 9.4 | 88 | 6200 | B190 |
| 17... | 1200 | 12.0 | 114 | 360 | 3 | 7.6 | .8 | 11.8 | 92 | B50 | B30 |
| 25... | 1300 | 13.0 | 145 | 428 | 15 | 7.2 | 3.4 | 10.4 | 98 | 40000 | B8200 |
| 31... | 1130 | 15.0 | 138 | 382 | 9 | 8.4 | 1.9 | 10.0 | 98 | 1020 | 550 |
| JUNE | | | | | | | | | | | |
| 06... | 1700 | 19.5 | 102 | 350 | 8 | 8.0 | .9 | 10.4 | 112 | 660 | 290 |
| 13... | 1500 | 22.0 | -- | 402 | 3 | 7.8 | .7 | 9.6 | 109 | 4200 | 170 |
| 21... | 1330 | 18.0 | 245 | 415 | -- | 8.1 | 1.1 | 9.1 | 100 | 30000 | 1500 |
| 26... | 1430 | 20.5 | 79 | 394 | 6 | -- | 1.0 | 9.3 | 109 | 5100 | 1200 |
| JULY | | | | | | | | | | | |
| 06... | 1040 | 20.0 | 239 | 455 | -- | -- | 1.0 | 8.3 | 96 | 39000 | 1000 |

B Results based on colony count outside the acceptable range (non-ideal colony count).

05407470 KICKAPOO RIVER AT ONTARIO, WIS.--Continued

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SPECIFIC CONDUCTANCE (MICROMHOS) | TURBIDITY (JTU) | PH (UNITS) | BIOCHEMICAL OXYGEN DEMAND (MG/L) | DISSOLVED OXYGEN (MG/L) | PERCENT SATURATION | IMMEDIATE COLIFORM (COL. PER 100 ML) | FECAL COLIFORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JULY | | | | | | | | | | | |
| 13... | 1200 | 23.5 | 65 | 390 | 9 | 9.2 | 1.2 | 9.1 | 112 | 590 | 580 |
| 20... | 1100 | 20.0 | 62 | 406 | 8 | -- | 2.3 | 8.0 | 91 | 70000 | 900 |
| 27... | 1300 | 20.5 | 69 | 396 | 8 | 7.7 | 1.5 | 8.9 | 103 | 5800 | 2300 |
| AUG. | | | | | | | | | | | |
| 03... | 1200 | 18.0 | 59 | 403 | 7 | 7.6 | 1.1 | 8.8 | 97 | 27000 | 640 |
| 09... | 1200 | 18.5 | 312 | 300 | 50 | 7.4 | 2.4 | 7.1 | 79 | 1400000 | -- |
| 16... | 1230 | 21.5 | 234 | 410 | 15 | 7.6 | 1.5 | 7.3 | 86 | 2800 | -- |
| 23... | 1205 | 16.0 | 868 | 222 | 45 | 6.5 | 5.8 | -- | -- | 540000 | 70000 |
| 30... | 1050 | 21.0 | 260 | 401 | 25 | 7.6 | 1.5 | 7.2 | 84 | 37000 | 2000 |
| SEP. | | | | | | | | | | | |
| 05... | 1415 | 20.0 | 318 | 418 | 4 | 7.6 | 1.7 | 9.3 | 101 | 180000 | 1000 |
| 08... | 1730 | 16.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | 1430 | 15.0 | 323 | 418 | 2 | 8.5 | 2.2 | 8.7 | 86 | 130000 | 1700 |
| 21... | 1300 | 11.0 | 58 | 425 | 3 | 7.6 | 2.8 | 10.0 | 91 | 7800 | 780 |
| 27... | 0920 | 16.0 | 191 | 388 | 5 | 6.7 | .8 | 8.4 | 85 | 150000 | 3400 |

| DATE | TIME | ALDRIN (UG/L) | CHLORDANE (UG/L) | DDD (UG/L) | DDE (UG/L) | DDT (UG/L) | DIELDRIN (UG/L) | ENDRIN (UG/L) | HEPTACHLOR (UG/L) | HEPTACHLOR EPOXIDE (UG/L) | LINDANE (UG/L) | TOXAPHENE (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APR. | | | | | | | | | | | | |
| 19... | 1100 | .00 | .0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .0 |
| SEP. | | | | | | | | | | | | |
| 08... | 1730 | .00 | .0 | .00 | .00 | .00 | .00 | .00 | .00 | -- | .00 | .0 |

| DATE | 2,4-D (UG/L) | 2,4,5-T (UG/L) | SILVEX (UG/L) | DIAZINON (UG/L) | ETHION (UG/L) | MALATHION (UG/L) | METHYL PARATHION (UG/L) | METHYL TRITHION (UG/L) | PARATHION (UG/L) | TRITHION (UG/L) | PCB (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| APR. | | | | | | | | | | | |
| 19... | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .0 |
| SEP. | | | | | | | | | | | |
| 08... | .00 | .00 | <.01 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .0 |

| DATE | TIME | ALDRIN IN BOTTOM DEPOSITS (UG/KG) | CHLORDANE IN BOTTOM DEPOSITS (UG/KG) | DDD IN BOTTOM DEPOSITS (UG/KG) | DDE IN BOTTOM DEPOSITS (UG/KG) | DDT IN BOTTOM DEPOSITS (UG/KG) | DIELDRIN IN BOTTOM DEPOSITS (UG/KG) |
|---|---|---|---|---|---|---|---|
| APR. | | | | | | | |
| 19... | 1100 | .0 | 0 | .0 | .0 | .0 | <.1 |

| DATE | ENDRIN IN BOTTOM DEPOSITS (UG/KG) | HEPTACHLOR IN BOTTOM DEPOSITS (UG/KG) | HEPTACHLOR EPOXIDE IN BOTTOM DEPOSITS (UG/KG) | LINDANE IN BOTTOM DEPOSITS (UG/KG) | TOXAPHENE IN BOTTOM DEPOSITS (UG/KG) | PCB IN BOTTOM DEPOSITS (UG/KG) |
|---|---|---|---|---|---|---|
| APR. | | | | | | |
| 19... | .0 | .0 | .0 | .0 | 0 | 0 |

## 05407470 KICKAPOO RIVER AT ONTARIO, WIS.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY)

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | --- | --- | 0.5 | 3.0 | 3.5 | 4.5 | 9.0 | 15.0 | 18.5 | 16.0 | --- |
| 2 | --- | --- | --- | 1.5 | 1.5 | 4.0 | 6.0 | 9.5 | 17.0 | 20.5 | 17.0 | --- |
| 3 | --- | --- | --- | 2.0 | 1.5 | 3.0 | 6.0 | 8.0 | 15.0 | 20.0 | 18.0 | --- |
| 4 | --- | --- | --- | 1.0 | 2.0 | 3.0 | 5.0 | 7.5 | 17.0 | 20.5 | 18.0 | --- |
| 5 | --- | --- | --- | 0.5 | 3.5 | 4.0 | 4.0 | 9.0 | --- | 20.0 | 20.0 | --- |
| 6 | --- | --- | --- | 0.5 | 3.5 | 4.0 | 8.0 | 11.0 | 17.0 | 20.5 | 21.5 | --- |
| 7 | --- | --- | --- | 0.5 | 1.5 | 3.5 | 8.0 | 12.0 | 17.0 | 21.5 | 18.0 | --- |
| 8 | --- | --- | --- | 0.5 | 0.5 | 4.0 | 7.0 | 10.0 | 18.0 | 21.5 | 21.5 | --- |
| 9 | --- | --- | --- | 0.5 | 1.0 | 4.0 | 10.0 | 10.0 | 18.5 | 22.5 | 19.5 | --- |
| 10 | --- | --- | --- | 1.0 | 0.5 | 4.0 | 1.0 | 13.0 | 18.0 | 20.0 | 16.0 | --- |
| 11 | --- | --- | --- | 0.5 | 1.0 | 4.5 | 1.0 | 11.5 | 22.0 | 20.0 | 20.0 | --- |
| 12 | --- | --- | --- | 0.5 | 2.0 | --- | 2.0 | 10.0 | 21.0 | 20.5 | 19.5 | --- |
| 13 | --- | --- | 0.5 | 1.0 | 1.5 | 1.5 | 4.5 | 9.0 | 18.5 | 23.0 | 20.0 | --- |
| 14 | --- | --- | 0.5 | 2.0 | 1.5 | 4.0 | --- | 8.0 | 18.0 | 19.5 | 16.0 | --- |
| 15 | --- | --- | 1.0 | 1.5 | 1.5 | 8.0 | 8.0 | 10.0 | 18.0 | 18.0 | 20.0 | --- |
| 16 | --- | --- | 0.5 | 2.0 | 0.5 | 5.5 | 5.0 | 9.5 | 20.0 | 16.0 | 18.5 | --- |
| 17 | --- | --- | 0.5 | 2.0 | 1.0 | 3.0 | --- | 10.0 | 18.5 | 16.0 | 19.5 | --- |
| 18 | --- | --- | 1.0 | 4.0 | 1.0 | 2.5 | 8.5 | 10.0 | --- | 18.5 | 19.0 | --- |
| 19 | --- | --- | 1.0 | 1.5 | 2.0 | 3.5 | 10.5 | 14.0 | 18.5 | --- | 20.5 | --- |
| 20 | --- | --- | 1.0 | 1.0 | 1.0 | 4.5 | 13.0 | 15.0 | 16.5 | 20.0 | 19.5 | --- |
| 21 | --- | --- | 1.0 | 1.0 | 1.0 | 3.0 | 13.0 | 14.0 | 16.5 | 18.0 | 17.5 | --- |
| 22 | --- | --- | 1.0 | 2.0 | 2.0 | 4.0 | 14.0 | 14.0 | 16.5 | 20.0 | --- | --- |
| 23 | --- | --- | 1.0 | 2.0 | 2.0 | 5.0 | 9.0 | 13.0 | 18.0 | 20.0 | 17.0 | --- |
| 24 | --- | --- | 1.0 | 1.5 | 2.0 | 8.0 | 10.0 | 14.0 | 18.0 | 20.0 | 16.0 | --- |
| 25 | --- | --- | 1.5 | 2.0 | 1.5 | 8.0 | 11.0 | 14.5 | 16.5 | 24.0 | 18.0 | 15.5 |
| 26 | --- | --- | 1.5 | 2.0 | 2.0 | 7.0 | 10.0 | 13.0 | 16.0 | 22.0 | --- | 17.0 |
| 27 | --- | --- | 1.5 | 3.5 | 2.0 | 6.0 | 11.0 | 13.5 | 15.5 | 18.0 | --- | 17.0 |
| 28 | --- | --- | 1.5 | 1.0 | 2.0 | 8.5 | 8.0 | 14.0 | 14.0 | 20.0 | --- | 15.0 |
| 29 | --- | --- | 1.5 | 0.5 | --- | 8.0 | 10.0 | 13.5 | 15.0 | 20.0 | 22.5 | 15.0 |
| 30 | --- | --- | --- | 1.5 | --- | 9.0 | 8.5 | 13.0 | 15.5 | 20.0 | --- | 15.5 |
| 31 | --- | --- | 1.5 | 2.0 | --- | 8.0 | --- | 15.0 | --- | 20.0 | --- | --- |
| MONTH | --- | --- | --- | 1.5 | 1.5 | 5.0 | 8.0 | 11.5 | 17.5 | 20.0 | 19.0 | --- |
| YEAR | MAX | 24.0 | MIN | 0.5 | MEAN | 9.5 | | | | | | |

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DECEMBER

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|
| 1 | -- | -- | -- |
| 2 | -- | -- | -- |
| 3 | -- | -- | -- |
| 4 | -- | -- | -- |
| 5 | -- | -- | -- |
| 6 | -- | -- | -- |
| 7 | -- | -- | -- |
| 8 | -- | -- | -- |
| 9 | -- | -- | -- |
| 10 | -- | -- | -- |
| 11 | -- | -- | -- |
| 12 | -- | -- | -- |
| 13 | 83 | 10 | 2.2 |
| 14 | 83 | 20 | 4.5 |
| 15 | 83 | 8 | 1.8 |
| 16 | 78 | 12 | 2.5 |
| 17 | 78 | 7 | 1.5 |
| 18 | 83 | 6 | 1.3 |
| 19 | 83 | 18 | 4.0 |
| 20 | 78 | 7 | 1.5 |
| 21 | 73 | 4 | .79 |
| 22 | 62 | 4 | .67 |
| 23 | 58 | 93 | 15 |
| 24 | 54 | 79 | 12 |
| 25 | 54 | 38 | 5.5 |
| 26 | 49 | 25 | 3.3 |
| 27 | 78 | 27 | 5.7 |
| 28 | 49 | 26 | 3.4 |
| 29 | 44 | 20 | 2.4 |
| 30 | 127 | 46 | 16 |
| 31 | 152 | 79 | 32 |
| MONTH | 1449 | -- | 116.86 |

WISCONSIN RIVER BASIN

05407470 KICKAPOO RIVER AT ONTARIO, WIS.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | JANUARY MEAN DISCHARGE (CFS) | JANUARY MEAN CONCEN-TRATION (MG/L) | JANUARY SEDIMENT DISCHARGE (TONS/DAY) | FEBRUARY MEAN DISCHARGE (CFS) | FEBRUARY MEAN CONCEN-TRATION (MG/L) | FEBRUARY SEDIMENT DISCHARGE (TONS/DAY) | MARCH MEAN DISCHARGE (CFS) | MARCH MEAN CONCEN-TRATION (MG/L) | MARCH SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 78 | 20 | 4.2 | 47 | 11 | 1.4 | 126 | 95 | 32 |
| 2 | 83 | 21 | 4.7 | 168 | -- | -- | 152 | 158 | 65 |
| 3 | 62 | 36 | 6.0 | 56 | 31 | 4.7 | 132 | 106 | 38 |
| 4 | 58 | 3 | .47 | 47 | 30 | 3.8 | 88 | 86 | 20 |
| 5 | 94 | 6 | 1.5 | 57 | 19 | 2.9 | 77 | 24 | 5.0 |
| 6 | 90 | 6 | 1.5 | 53 | 21 | 3.0 | 71 | 10 | 1.9 |
| 7 | 74 | 20 | 4.0 | 35 | 39 | 3.7 | 1960 | 3340 | 17700 |
| 8 | 70 | 19 | 1.9 | 108 | 11 | 3.2 | 140 | 202 | 76 |
| 9 | 52 | 10 | 1.4 | 68 | 12 | 2.2 | 104 | 97 | 27 |
| 10 | 62 | 8 | 1.3 | 49 | 15 | 2.0 | 92 | 75 | 19 |
| 11 | 64 | 7 | 1.2 | 44 | 14 | 1.7 | 509 | -- | -- |
| 12 | 64 | 8 | 1.4 | 44 | 10 | 1.2 | 270 | 483 | 294 |
| 13 | 74 | 20 | 4.0 | 40 | 17 | 1.8 | 172 | 172 | 80 |
| 14 | 74 | 20 | 4.0 | 45 | 16 | 1.9 | 1050 | 3360 | 9530 |
| 15 | 74 | 6 | 1.2 | 45 | 12 | 1.5 | 868 | 314 | 736 |
| 16 | 64 | 8 | 1.4 | 80 | 11 | 2.4 | 164 | 243 | 108 |
| 17 | 110 | 53 | 16 | 90 | 5 | 1.2 | 132 | 91 | 32 |
| 18 | 380 | 586 | 519 | 51 | 12 | 1.7 | 114 | 72 | 22 |
| 19 | 189 | 98 | 29 | 51 | 10 | 1.4 | 98 | 44 | 12 |
| 20 | 78 | 14 | 2.9 | 51 | 8 | 1.1 | 93 | 31 | 7.8 |
| 21 | 58 | 18 | 2.8 | 46 | 11 | 1.4 | 88 | 59 | 14 |
| 22 | 63 | 18 | 3.1 | 43 | 8 | .93 | 78 | 24 | 5.1 |
| 23 | 59 | 12 | 1.9 | 47 | 12 | 1.5 | 88 | 34 | 8.1 |
| 24 | 45 | 4 | .49 | 47 | 16 | 2.0 | 78 | 25 | 5.3 |
| 25 | 45 | 11 | 1.3 | 27 | 8 | .58 | 78 | 23 | 4.8 |
| 26 | 46 | 14 | 1.7 | 62 | 14 | 2.3 | 78 | 13 | 2.7 |
| 27 | 55 | 36 | 5.3 | 53 | 4 | .57 | 78 | 18 | 3.8 |
| 28 | 46 | 19 | 2.4 | 48 | 7 | .91 | 83 | 11 | 2.5 |
| 29 | 88 | 8 | 1.7 | -- | -- | -- | 78 | 16 | 3.4 |
| 30 | 46 | 8 | .99 | -- | -- | -- | 68 | 10 | 1.8 |
| 31 | 47 | 9 | 1.1 | -- | -- | -- | 68 | 22 | 4.0 |
| TOTAL | 2404 | -- | 629.85 | 1682 | -- | 52.99 | 7355 | -- | 28861.2 |

| DAY | APRIL MEAN DISCHARGE (CFS) | APRIL MEAN CONCEN-TRATION (MG/L) | APRIL SEDIMENT DISCHARGE (TONS/DAY) | MAY MEAN DISCHARGE (CFS) | MAY MEAN CONCEN-TRATION (MG/L) | MAY SEDIMENT DISCHARGE (TONS/DAY) | JUNE MEAN DISCHARGE (CFS) | JUNE MEAN CONCEN-TRATION (MG/L) | JUNE SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 109 | 62 | 18 | 378 | 214 | 218 | 114 | 25 | 7.7 |
| 2 | 104 | 39 | 11 | 1120 | 1680 | 5080 | 104 | 10 | 2.8 |
| 3 | 88 | 18 | 4.3 | 309 | 136 | 113 | 178 | 42 | 20 |
| 4 | 104 | 24 | 6.7 | 208 | 86 | 48 | 109 | 12 | 3.5 |
| 5 | 78 | 16 | 3.4 | 158 | 118 | 50 | 132 | 104 | 37 |
| 6 | 78 | 17 | 3.6 | 152 | 113 | 46 | 104 | 12 | 3.4 |
| 7 | 68 | 10 | 1.8 | 268 | 445 | 322 | 93 | 15 | 3.8 |
| 8 | 62 | 16 | 2.7 | 396 | 341 | 365 | 88 | 12 | 2.9 |
| 9 | 49 | 68 | 9.0 | 275 | 190 | 141 | 88 | 16 | 3.8 |
| 10 | 62 | 50 | 8.4 | 208 | 88 | 49 | 83 | 12 | 2.7 |
| 11 | 88 | 82 | 19 | 171 | 136 | 63 | 78 | 15 | 3.2 |
| 12 | 93 | 32 | 8.0 | 164 | 13 | 5.8 | 98 | 20 | 5.3 |
| 13 | 104 | 48 | 13 | 132 | 64 | 23 | 78 | 10 | 2.1 |
| 14 | 109 | 247 | 73 | 126 | 18 | 6.1 | 78 | 11 | 2.3 |
| 15 | 378 | 206 | 210 | 126 | 21 | 7.1 | 104 | 17 | 4.8 |
| 16 | 1880 | 1910 | 9700 | 120 | 33 | 11 | 83 | 22 | 4.9 |
| 17 | 450 | 626 | 761 | 109 | 14 | 4.1 | 200 | 169 | 91 |
| 18 | 284 | -- | -- | 109 | 22 | 6.5 | 78 | -- | -- |
| 19 | 230 | 77 | 48 | 145 | 180 | 70 | 78 | 41 | 8.6 |
| 20 | 200 | 96 | 52 | 114 | 12 | 3.7 | 78 | 37 | 7.8 |
| 21 | 245 | 310 | 205 | 88 | 8 | 1.9 | 78 | 50 | 11 |
| 22 | 204 | 389 | 218 | 126 | 18 | 6.1 | 78 | 38 | 8.0 |
| 23 | 158 | 40 | 17 | 120 | 12 | 3.9 | 78 | 44 | 9.3 |
| 24 | 145 | 44 | 17 | 104 | 7 | 2.0 | 78 | 38 | 8.0 |
| 25 | 120 | 27 | 8.7 | 158 | 76 | 32 | 78 | 37 | 7.8 |
| 26 | 120 | 20 | 6.5 | 132 | 14 | 5.0 | 78 | 40 | 8.4 |
| 27 | 109 | 28 | 8.2 | 126 | 13 | 4.4 | 126 | 134 | 46 |
| 28 | 109 | 22 | 6.5 | 742 | 885 | 1610 | 83 | -- | -- |
| 29 | 626 | 1060 | 1790 | 252 | 128 | 87 | 78 | 27 | 5.7 |
| 30 | 326 | 242 | 213 | 158 | 26 | 11 | 78 | 32 | 6.7 |
| 31 | -- | -- | -- | 132 | 22 | 7.8 | -- | -- | -- |
| TOTAL | 6784 | -- | 13442.8 | 6926 | -- | 8483.4 | 2879 | -- | 328.5 |

05407470 KICKAPOO RIVER AT ONTARIO, WIS.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | JULY | | | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 78 | 28 | 5.9 | 63 | 27 | 4.6 | 54 | 17 | 2.5 |
| 2 | 78 | 29 | 6.1 | 58 | 26 | 4.1 | 58 | 6 | .94 |
| 3 | 68 | 66 | 12 | 58 | 26 | 4.1 | 78 | 24 | 5.1 |
| 4 | 68 | 40 | 7.3 | 58 | 22 | 3.4 | 68 | 20 | 3.7 |
| 5 | 88 | 32 | 5.9 | 54 | 24 | 3.5 | 63 | 18 | 3.1 |
| 6 | 68 | 102 | 19 | 58 | 20 | 4.4 | 58 | 17 | 2.7 |
| 7 | 62 | 28 | 4.7 | 78 | 48 | 10 | 58 | 20 | 3.1 |
| 8 | 54 | 26 | 3.8 | 68 | 35 | 6.4 | 63 | 23 | 3.9 |
| 9 | 54 | 33 | 4.8 | 343 | 913 | 846 | 73 | 26 | 5.1 |
| 10 | 58 | 18 | 2.8 | 78 | 68 | 14 | 63 | 22 | 3.7 |
| 11 | 58 | 21 | 3.3 | 63 | 58 | 9.9 | 58 | 23 | 3.6 |
| 12 | 54 | 28 | 4.1 | 63 | 26 | 4.4 | 58 | 19 | 3.0 |
| 13 | 54 | 29 | 4.2 | 58 | 30 | 4.7 | 58 | 20 | 3.1 |
| 14 | 54 | 18 | 2.6 | 88 | 286 | 68 | 58 | 23 | 3.6 |
| 15 | 54 | 20 | 2.9 | 63 | 64 | 11 | 58 | 16 | 2.5 |
| 16 | 54 | 24 | 3.5 | 63 | 46 | 7.8 | 58 | 16 | 2.5 |
| 17 | 54 | 28 | 4.1 | 63 | 28 | 4.8 | 78 | 25 | 5.3 |
| 18 | 54 | 28 | 4.1 | 58 | 26 | 4.1 | 68 | 21 | 3.9 |
| 19 | 54 | 25 | 3.6 | 54 | 22 | 3.2 | 63 | 15 | 2.6 |
| 20 | 54 | 13 | 1.9 | 63 | 22 | 3.7 | 58 | 14 | 2.2 |
| 21 | 58 | 26 | 4.1 | 58 | 20 | 3.1 | 58 | 13 | 2.0 |
| 22 | 68 | 26 | 4.8 | 58 | -- | -- | 54 | 486 | 71 |
| 23 | 63 | 45 | 7.7 | 622 | 17 | 29 | 68 | 52 | 9.5 |
| 24 | 63 | 40 | 6.8 | 98 | 96 | 25 | 68 | 27 | 5.0 |
| 25 | 58 | 40 | 6.3 | 78 | 50 | 11 | 98 | 66 | 17 |
| 26 | 58 | 34 | 5.3 | 73 | 24 | 4.7 | 73 | 29 | 5.7 |
| 27 | 68 | 35 | 6.4 | 68 | 30 | 5.5 | 73 | 24 | 4.7 |
| 28 | 63 | 10 | 1.7 | 68 | 23 | 4.2 | 68 | 24 | 4.4 |
| 29 | 58 | 46 | 7.2 | 63 | 32 | 5.4 | 63 | 24 | 4.1 |
| 30 | 88 | 131 | 31 | 58 | 20 | 3.1 | 63 | 30 | 5.1 |
| 31 | 68 | 32 | 5.9 | 54 | 22 | 3.2 | -- | -- | -- |
| TOTAL | 1913 | -- | 193.8 | 2850 | -- | 1116.3 | 1937 | -- | 194.64 |

| DATE | TIME | TEMPERA-TURE (DEG C) | INSTAN-TANEOUS DIS-CHARGE (CFS) | SUS. SED. FALL DIAM. % FINER THAN .002 MM | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. SIEVE DIAM. % FINER THAN .062 MM | SUS. SED. SIEVE DIAM. % FINER THAN .125 MM. | SUS. SED. SIEVE DIAM. % FINER THAN .500 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN. 18... | 1615 | 1.0 | 440 | 18 | 24 | 30 | 41 | 59 | 71 | 76 | 100 |
| MAR. 14... | 1115 | -- | -- | 23 | 30 | 40 | 52 | 69 | 86 | 97 | 100 |
| APR. 16... | 0900 | -- | -- | 17 | 21 | 26 | 38 | 57 | 72 | 84 | 100 |
| AUG. 23... | 1205 | 16.0 | 868 | 24 | 32 | 40 | 54 | 71 | 82 | 91 | -- |

| DATE | TIME | INSTAN-TANEOUS DIS-CHARGE (CFS) | BED MAT. SIEVE DIAM. % FINER THAN .062 MM | BED MAT. SIEVE DIAM. % FINER THAN .125 MM | BED MAT. SIEVE DIAM. % FINER THAN .250 MM | BED MAT. SIEVE DIAM. % FINER THAN .500 MM | BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM |
|---|---|---|---|---|---|---|---|---|---|---|
| JAN. 11... | 1315 | -- | 0 | 0 | 13 | 82 | 94 | 95 | 96 | 97 |
| APR. 19... | 1100 | 524 | 1 | 1 | 5 | 68 | 94 | 97 | 99 | 99 |
| SEP. 08... | 1730 | -- | 2 | 13 | 53 | 97 | 100 | 100 | 100 | -- |

## 05407920 KICKAPOO RIVER NEAR ROCKTON, WIS.

LOCATION.--Lat 43°36'46", long 90°37'34", in SE¼ SW¼ sec.9, T.13 N., R.2 W., Vernon County, at bridge on State Highway 131, and 2.0 mi (3.2 km) southwest of Rockton.
DRAINAGE AREA.--264 mi² (684 km²), approximately.
PERIOD OF RECORD.--Chemical analyses: November 1971 to September 1973.
Water temperatures: November 1971 to September 1973.
Sediment records: November 1971 to September 1973.
EXTREMES, 1972-73.--Water temperatures: Maximum, 23.0°C July 24, 1973; minimum, freezing point on many days during winter period.
Sediment discharges: Maximum daily, 14,700 tons (13,336 t) Mar. 7, 1973; minimum daily, 0.59 tons (0.54 t) Feb. 16, 1973.
1971-73.--Water temperatures: Maximum, 25.0°C Aug. 20, 1972; minimum, freezing point on many days during winter period.
Sediment discharges: Maximum daily, 14,700 tons (13,336 t) Mar. 7, 1973; minimum daily, 0.59 tons (0.54 t) Feb. 16, 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SiO2) (MG/L) | TOTAL IRON (FE) (UG/L) | DISSOLVED IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) | SODIUM ADSORPTION RATIO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. 11... | 0730 | 145 | 11 | 50 | 0 | 120 | 100 | 67 | 19 | 2.5 | .1 |
| NOV. 15... | 1330 | 159 | 6.7 | 60 | -- | 77 | -- | 53 | 30 | 2.7 | .1 |
| DEC. 13... | 1650 | 211 | 10 | -- | 50 | -- | 94 | 59 | 27 | 2.4 | .1 |
| JAN. 11... | 1500 | 222 | 12 | 50 | 40 | 100 | 100 | 90 | 10 | 2.0 | .1 |
| FEB. 09... | 1130 | 218 | 11 | -- | 50 | -- | 260 | 60 | 29 | 2.4 | .1 |
| MAR. 09... | 1300 | 314 | 9.5 | 140 | 90 | 100 | 100 | 52 | 17 | 2.7 | .1 |
| APR. 19... | 1100 | 577 | 7.8 | -- | 10 | -- | 74 | 42 | 23 | 2.6 | .1 |
| JUNE 06... | 1200 | 288 | 8.5 | -- | 10 | -- | 50 | 49 | 28 | 2.5 | .1 |
| JULY 27... | 1100 | 172 | 11 | -- | 50 | -- | 100 | 55 | 28 | 2.5 | .1 |
| SEP. 05... | 1215 | -- | 11 | -- | 30 | -- | 43 | 54 | 29 | 2.4 | .1 |

| DATE | PERCENT SODIUM | DISSOLVED POTASSIUM (K) (MG/L) | ALKALINITY AS CACO3 (MG/L) | BICARBONATE (HCO3) (MG/L) | CARBONATE (CO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | DISSOLVED SOLIDS (TONS PER AC-FT) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. 11... | 2 | 2.5 | 225 | 274 | 0 | 18 | 9.0 | .2 | 250 | 268 | .34 |
| NOV. 15... | 2 | 1.5 | 228 | 278 | 0 | 17 | 15 | .1 | 308 | 267 | .42 |
| DEC. 13... | 2 | 1.2 | 223 | 272 | 0 | 17 | 6.0 | .3 | 252 | 260 | .34 |
| JAN. 11... | 2 | 1.4 | 248 | 302 | 0 | 18 | 8.0 | .1 | 262 | 294 | .36 |
| FEB. 09... | 2 | 2.0 | 239 | 292 | 0 | 19 | 5.5 | .1 | 279 | 277 | .38 |
| MAR. 09... | 3 | 3.8 | 176 | 214 | 0 | 17 | 6.0 | .6 | 216 | 218 | .29 |
| APR. 19... | 3 | 2.5 | 172 | 210 | 0 | 16 | 6.0 | .1 | 206 | 208 | .28 |
| JUNE 06... | 2 | 1.7 | 213 | 260 | 0 | 14 | 8.0 | .1 | 234 | 243 | .32 |
| JULY 27... | 2 | 1.5 | 233 | 284 | 0 | 15 | 5.0 | .1 | 253 | 261 | .34 |
| SEP. 05... | 2 | 1.9 | 233 | 284 | 0 | 15 | 3.0 | .2 | 274 | 260 | .37 |

05407920 KICKAPOO RIVER NEAR ROCKTON, WIS.--Continued

| DATE | HARDNESS (CaCO3) (MG/L) | NON-CARBONATE HARDNESS (MG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) | TEMPERATURE (DEG C) | COLOR (PLATINUM-COBALT UNITS) | DISSOLVED NITRATE (N) (MG/L) | TOTAL KJELDAHL NITROGEN (N) (MG/L) | TOTAL PHOSPHORUS (PO4) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | CARBON DIOXIDE (CO2) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 11... | 250 | 22 | 445 | 7.9 | 9.5 | 10 | .80 | 1.1 | 1.2 | .40 | -- |
| NOV. | | | | | | | | | | | |
| 15... | 260 | 23 | 470 | 8.2 | 1.5 | 10 | .90 | .13 | .14 | .05 | 2.9 |
| DEC. | | | | | | | | | | | |
| 13... | 260 | 34 | 260 | 8.1 | .0 | 5 | .77 | .41 | 1.0 | .32 | 3.5 |
| JAN. | | | | | | | | | | | |
| 11... | 270 | 19 | 490 | 7.9 | .0 | 5 | 1.0 | .14 | .20 | .06 | 6.1 |
| FEB. | | | | | | | | | | | |
| 09... | 270 | 32 | -- | 8.0 | .0 | 3 | .80 | .37 | .31 | .10 | 6.7 |
| MAR. | | | | | | | | | | | |
| 04... | 280 | 25 | 390 | 7.8 | 6.0 | 15 | 1.1 | 1.1 | -- | -- | 4.3 |
| APR. | | | | | | | | | | | |
| 19... | 280 | 26 | -- | 7.6 | 11.5 | 5 | 1.6 | .84 | .65 | .21 | 13 |
| JUNE | | | | | | | | | | | |
| 06... | 260 | 25 | 445 | -- | 16.5 | 10 | .50 | .57 | 1.0 | .32 | -- |
| JULY | | | | | | | | | | | |
| 27... | 250 | 20 | 430 | 7.8 | 18.5 | 5 | .70 | .72 | .58 | .19 | 7.2 |
| SEP. | | | | | | | | | | | |
| 05... | 260 | 22 | 410 | 6.5 | 18.5 | 3 | .50 | .24 | .20 | .09 | 144 |

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SPECIFIC CONDUCTANCE (MICROMHOS) | TURBIDITY (JTU) | PH (UNITS) | BIOCHEMICAL OXYGEN DEMAND (MG/L) | DISSOLVED OXYGEN (MG/L) | PERCENT SATURATION | INFECTIOUS COLIFORM (COL. PER 100 ML) | FECAL COLIFORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 04... | 1100 | 13.5 | 220 | 360 | 20 | 7.6 | 1.0 | 8.7 | 83 | 18000 | 100 |
| 10... | 1300 | 9.5 | 167 | 320 | 10 | 8.3 | -- | 5.9 | 86 | -- | -- |
| 11... | 0730 | 9.5 | 145 | 445 | 3 | 7.9 | 1.8 | -- | -- | 78000 | 860 |
| 19... | 1030 | 3.5 | 143 | 265 | -- | 7.7 | 1.0 | 12.6 | 95 | 5400 | 40 |
| 27... | 1030 | 7.5 | 272 | 350 | 5 | 8.4 | 1.0 | 10.7 | 88 | 34000 | 160 |
| NOV. | | | | | | | | | | | |
| 02... | 1000 | 7.0 | 344 | 325 | 30 | 8.0 | <2.7 | 10.3 | 85 | 240000 | 5900 |
| 09... | 1230 | 5.5 | 190 | 340 | 2 | 8.6 | <.3 | 11.8 | 93 | 7200 | 120 |
| 15... | 1330 | 1.5 | 154 | 400 | 3 | 8.2 | <.9 | 14.4 | 103 | 7200 | 130 |
| 22... | 1345 | 2.5 | 104 | 255 | 3 | 7.9 | <.5 | 13.9 | 102 | 29000 | 610 |
| 29... | 1015 | .5 | 130 | 220 | 15 | 8.5 | 1.1 | 14.0 | 97 | 14000 | 140 |
| DEC. | | | | | | | | | | | |
| 07... | 1515 | .0 | 272 | 280 | 0 | 8.3 | 1.1 | 12.4 | 85 | 9500 | 230 |
| 13... | 1650 | .0 | 211 | 240 | -- | 8.1 | <1.8 | 12.8 | 88 | 550 | 55 |
| 22... | 1230 | .0 | 245 | 240 | 2 | 8.0 | 1.0 | 12.4 | 85 | 5600 | 700 |
| 29... | 0915 | .0 | 195 | 400 | 5 | 7.4 | .7 | 14.5 | 98 | 2700 | 270 |
| JAN. | | | | | | | | | | | |
| 03... | 1030 | .0 | -- | 250 | 4 | 7.9 | 2.2 | 12.0 | 82 | 5500 | 340 |
| 11... | 1500 | .0 | 222 | 260 | -- | 7.9 | -- | 9.8 | 67 | -- | -- |
| 12... | 1030 | 1.5 | -- | -- | -- | -- | .7 | -- | -- | 1800 | 410 |
| 18... | 1000 | .5 | 1011 | 185 | -- | 7.6 | 7.6 | 10.6 | 74 | >500000 | 4500 |
| 18... | 1610 | 1.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 1030 | .5 | 360 | 396 | 3 | 7.7 | 2.6 | 13.3 | 92 | 10000 | 330 |
| FEB. | | | | | | | | | | | |
| 02... | 1300 | 1.0 | 795 | 267 | 40 | 7.6 | 6.7 | 13.0 | 92 | 120000 | 3600 |
| 09... | 1130 | .0 | 219 | -- | 15 | 8.0 | 1.2 | 12.7 | 93 | 700 | 10 |
| 16... | 1045 | .5 | 132 | 422 | 2 | 8.1 | .5 | 12.5 | 89 | 480 | 10 |
| 21... | 1100 | .0 | -- | 467 | 5 | 7.8 | 1.1 | 13.4 | 97 | 12000 | 40 |
| MAR. | | | | | | | | | | | |
| 02... | 1100 | 1.5 | 532 | 252 | 40 | 7.4 | >7.0 | 12.4 | 87 | -- | -- |
| 09... | 1300 | 4.0 | 314 | 350 | 15 | 7.9 | 2.0 | 12.4 | 94 | 4100 | 300 |
| 15... | 1000 | 8.0 | 641 | 284 | 55 | 7.6 | 2.2 | 10.8 | 91 | 31000 | 400 |
| 23... | 1000 | 5.5 | 237 | 399 | 15 | 8.0 | 1.0 | 12.0 | 95 | -- | -- |
| 29... | 1400 | 9.0 | 222 | 396 | 15 | 7.8 | 1.6 | 8.7 | 77 | -- | -- |
| APR. | | | | | | | | | | | |
| 08... | 1030 | 8.0 | 314 | 392 | 5 | 8.2 | 7.1 | 11.2 | 94 | 1330 | 280 |
| 13... | 1100 | 4.5 | 314 | 380 | 7 | -- | 1.0 | 11.6 | 98 | 740 | 360 |
| 19... | 1100 | 11.5 | 577 | -- | -- | 7.4 | -- | -- | -- | B3300 | B500 |
| 29... | 1300 | 16.0 | -- | 385 | 30 | -- | .3 | -- | -- | -- | -- |
| 29... | 1030 | 10.0 | 380 | 290 | 15 | 7.9 | .8 | 11.2 | 99 | 3000 | 150 |

B Results based on colony count outside the acceptable range (non-ideal colony count).

05407920 KICKAPOO RIVER NEAR ROCKTON, WIS.--Continued

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SPECIFIC CONDUCTANCE (MICROMHOS) | TURBIDITY (JTU) | pH (UNITS) | BIOCHEMICAL OXYGEN DEMAND (MG/L) | DISSOLVED OXYGEN (MG/L) | PERCENT SATURATION | IMMEDIATE COLIFORM (COL. PER 100 ML) | FECAL COLIFORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | | |
| 04... | 1030 | 8.5 | 689 | 380 | 10 | -- | 1.0 | 10.1 | 86 | 18000 | 480 |
| 10... | 1400 | 13.0 | 582 | 345 | 10 | -- | .7 | 9.4 | 88 | 3600 | 440 |
| 17... | 1000 | 10.5 | 387 | 394 | 8 | 7.6 | .4 | 8.9 | 79 | 1600 | 160 |
| 25... | 1130 | 13.0 | 483 | 400 | 20 | 8.1 | 2.2 | 9.9 | 93 | 15000 | 300 |
| 31... | 1000 | 14.0 | 374 | 383 | -- | 8.1 | 2.1 | 9.4 | 90 | 3400 | 510 |
| JUNE | | | | | | | | | | | |
| 06... | 1200 | 18.5 | 280 | 445 | 9 | -- | .7 | 9.5 | 97 | 8000 | 290 |
| 13... | 1345 | 19.0 | 195 | 395 | 3 | 7.7 | 1.0 | 9.2 | 99 | 430 | 150 |
| 21... | 1115 | 23.5 | 284 | 405 | -- | 8.3 | 1.1 | 9.3 | 109 | 2900 | 320 |
| 26... | 1100 | 18.0 | 212 | 413 | 7 | -- | .9 | 8.8 | 97 | 28000 | 11000 |
| JULY | | | | | | | | | | | |
| 06... | 0945 | 20.0 | 154 | 408 | -- | -- | .7 | 8.0 | 92 | 9000 | 560 |
| 13... | 1000 | 22.0 | 146 | 419 | 7 | 7.9 | 1.1 | 7.8 | 90 | 3900 | 300 |
| 20... | 1000 | 20.5 | 138 | 419 | 10 | 8.0 | 2.0 | 7.6 | 89 | 28000 | 100 |
| 27... | 1100 | 18.5 | 172 | 430 | 17 | 7.8 | .8 | 8.3 | 92 | 6500 | 1900 |
| AUG. | | | | | | | | | | | |
| 03... | 1030 | 17.0 | 137 | 416 | 13 | 7.8 | 1.0 | 8.4 | 90 | 3200 | 670 |
| 09... | 1000 | 18.5 | 234 | 384 | 40 | 7.4 | 1.2 | 7.8 | 87 | 58000 | -- |
| 16... | 1100 | 19.5 | 143 | 425 | 24 | 7.8 | 1.0 | 7.7 | 87 | -- | 1000 |
| 23... | 1100 | 15.0 | 818 | 385 | 52 | 7.0 | 5.2 | -- | -- | 1100000 | B15000 |
| 30... | 1000 | 21.0 | 158 | 440 | 34 | 7.6 | 1.7 | 7.0 | 88 | 22000 | 1800 |
| SEP. | | | | | | | | | | | |
| 05... | 1215 | 18.5 | -- | 410 | 7 | 6.5 | 1.0 | 8.7 | 92 | 23000 | 400 |
| 13... | 1015 | 15.0 | 150 | 390 | 5 | 6.3 | 1.7 | 8.8 | 84 | 35000 | 3000 |
| 21... | 1000 | 10.5 | 151 | 474 | 5 | 6.4 | 1.7 | 9.9 | 88 | 6500 | 750 |
| 27... | 0815 | 10.5 | 187 | 390 | 5 | 6.5 | .8 | 8.3 | 85 | 110000 | 1700 |

| DATE | TIME | DISSOLVED ALUMINUM (AL) (UG/L) | DISSOLVED ARSENIC (AS) (UG/L) | DISSOLVED COBALT (CO) (UG/L) | DISSOLVED COPPER (CU) (UG/L) | DISSOLVED LEAD (PB) (UG/L) | DISSOLVED NICKEL (NI) (UG/L) | DISSOLVED ZINC (ZN) (UG/L) | DISSOLVED CADMIUM (CD) (UG/L) | DISSOLVED SILVER (AG) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | |
| 10... | 1300 | 100 | 6 | 0 | 4 | 2 | 2 | 20 | 1 | 0 |

| DATE | TIME | ALDRIN (UG/L) | CHLORDANE (UG/L) | DDD (UG/L) | DDE (UG/L) | DDT (UG/L) | DIELDRIN (UG/L) | ENDRIN (UG/L) | HEPTACHLOR (UG/L) | HEPTACHLOR EPOXIDE (UG/L) | LINDANE (UG/L) | METHOXYCHLOR (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | | |
| 10... | 1300 | .00 | E.0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .0 |
| APR. | | | | | | | | | | | | |
| 19... | 1100 | .00 | .0 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .0 |

| DATE | 2,4-D (UG/L) | 2,4,5-T (UG/L) | SILVEX (UG/L) | DI-AZINON (UG/L) | DIMINON (UG/L) | MALATHION (UG/L) | METHYL PARATHION (UG/L) | METHYL TRITHION (UG/L) | PARATHION (UG/L) | TRITHION (UG/L) | PCB (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 10... | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | E.0 |
| APR. | | | | | | | | | | | |
| 19... | .00 | .01 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .0 |

| DATE | TIME | ALDRIN IN BOTTOM DEPOSITS (UG/KG) | CHLORDANE IN BOTTOM DEPOSITS (UG/KG) | DDD IN BOTTOM DEPOSITS (UG/KG) | DDE IN BOTTOM DEPOSITS (UG/KG) | DDT IN BOTTOM DEPOSITS (UG/KG) | DIELDRIN IN BOTTOM DEPOSITS (UG/KG) |
|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | |
| 10... | 1300 | .0 | E0 | .0 | .0 | .0 | .0 |
| APR. | | | | | | | |
| 19... | 1100 | .0 | 0 | .0 | .0 | 4.1 | .0 |

| DATE | ENDRIN IN BOTTOM DEPOSITS (UG/KG) | HEPTACHLOR IN BOTTOM DEPOSITS (UG/KG) | HEPTACHLOR EPOXIDE IN BOTTOM DEPOSITS (UG/KG) | LINDANE IN BOTTOM DEPOSITS (UG/KG) | TOXAPHENE IN BOTTOM DEPOSITS (UG/KG) | PCB IN BOTTOM DEPOSITS (UG/KG) |
|---|---|---|---|---|---|---|
| OCT. | | | | | | |
| 10... | .0 | .0 | .0 | .0 | 0 | E0 |
| APR. | | | | | | |
| 19... | .0 | .0 | .0 | .0 | 0 | 0 |

B Results based on colony count outside the acceptable range (non-ideal colony count).

## 05407920 KICKAPOO RIVER NEAR ROCKTON, WIS.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY)

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | 8.0 | 1.5 | 0.5 | --- | --- | 6.5 | --- | 14.0 | --- | 16.0 | 20.5 |
| 2 | 10.5 | 9.0 | 1.0 | 0.5 | --- | 2.0 | 6.0 | 8.0 | --- | --- | --- | 21.0 |
| 3 | 13.5 | 8.0 | 1.0 | 0.5 | 1.0 | 3.0 | 5.5 | 6.0 | --- | 19.5 | --- | 20.0 |
| 4 | 13.5 | 7.0 | --- | 0.5 | 1.0 | 4.5 | 5.0 | 7.0 | 18.0 | 19.5 | --- | 19.5 |
| 5 | 12.0 | --- | --- | --- | --- | 4.0 | --- | 9.0 | 17.0 | 19.0 | --- | 18.0 |
| 6 | 13.0 | 7.0 | --- | --- | 2.5 | 4.0 | 6.5 | 9.0 | --- | 19.0 | --- | 15.5 |
| 7 | --- | 9.5 | 0.0 | --- | 0.0 | 3.0 | 7.5 | --- | 16.0 | --- | 18.0 | --- |
| 8 | 9.5 | 8.0 | 0.0 | 0.0 | 0.0 | 4.0 | --- | 10.0 | 17.5 | 22.0 | --- | 15.5 |
| 9 | 9.0 | 7.0 | --- | 0.0 | 0.5 | 4.0 | --- | 11.0 | 17.0 | 21.5 | 19.0 | 15.0 |
| 10 | --- | --- | 0.0 | 0.0 | 0.5 | 4.0 | --- | 11.5 | --- | 19.0 | 21.0 | 15.0 |
| 11 | 12.0 | 8.0 | --- | 0.0 | --- | --- | --- | 10.5 | 20.5 | 18.5 | 18.0 | 14.5 |
| 12 | 12.0 | --- | --- | 0.0 | 0.0 | 6.0 | --- | 11.5 | 20.0 | 19.5 | 18.0 | 13.5 |
| 13 | 12.0 | 6.5 | 0.5 | 0.0 | 0.5 | 7.0 | 7.0 | 9.0 | 17.0 | --- | 19.0 | 14.5 |
| 14 | 10.0 | 5.5 | --- | 0.5 | 0.5 | 8.5 | --- | 9.0 | 17.0 | 19.0 | 18.0 | 13.5 |
| 15 | 6.5 | 4.5 | 0.5 | 0.5 | 0.5 | 8.0 | --- | 8.0 | 19.0 | 18.0 | 17.0 | 13.0 |
| 16 | 10.0 | 4.0 | 0.5 | 0.5 | 0.0 | 5.5 | --- | 10.0 | 18.0 | --- | --- | 11.0 |
| 17 | --- | 4.5 | --- | 0.5 | 0.0 | 3.5 | --- | 9.5 | 17.0 | 18.0 | --- | 11.5 |
| 18 | 6.5 | 5.0 | 0.5 | 1.0 | 0.0 | --- | 8.0 | 11.0 | 17.5 | --- | 19.0 | --- |
| 19 | --- | 4.0 | 1.0 | 1.0 | 0.0 | 4.0 | --- | 13.0 | --- | 20.5 | 19.5 | 11.0 |
| 20 | --- | 4.5 | 1.0 | 0.5 | 1.0 | 5.0 | 12.0 | --- | 17.0 | 20.5 | 18.0 | 11.0 |
| 21 | 6.0 | 4.5 | 1.0 | 0.5 | 0.5 | 5.5 | 12.5 | --- | 16.0 | 18.5 | 17.0 | 10.5 |
| 22 | 6.5 | 4.5 | 1.0 | --- | 1.0 | 6.0 | 11.0 | 12.0 | 14.5 | --- | --- | 12.0 |
| 23 | 7.0 | --- | 0.5 | --- | 1.0 | 7.5 | 9.0 | 12.0 | 16.0 | 19.0 | 15.0 | 12.0 |
| 24 | 7.0 | 3.5 | 1.0 | 0.5 | --- | 7.0 | 8.5 | --- | --- | 23.0 | 15.0 | 11.5 |
| 25 | 8.5 | 3.5 | 1.0 | 2.0 | --- | 6.5 | 10.0 | 13.0 | 17.5 | --- | 15.5 | 14.5 |
| 26 | 10.0 | 4.0 | 0.5 | 2.0 | --- | --- | 8.5 | 11.0 | --- | 21.0 | 17.0 | --- |
| 27 | 8.0 | --- | 0.5 | 1.5 | --- | 8.5 | 9.0 | --- | 16.5 | 18.5 | 20.0 | 11.5 |
| 28 | 8.0 | 2.0 | 1.0 | --- | --- | 6.5 | 8.0 | 12.0 | 16.0 | 18.0 | --- | 14.5 |
| 29 | 6.0 | 1.0 | 1.0 | 1.0 | --- | 6.5 | 10.0 | 11.0 | --- | --- | 20.5 | 14.5 |
| 30 | 6.5 | 2.0 | 1.5 | 0.5 | --- | 6.5 | 8.0 | 12.0 | --- | 18.5 | 20.0 | 13.5 |
| 31 | 8.0 | --- | 1.0 | 0.0 | --- | 7.5 | --- | 13.0 | --- | 18.5 | --- | --- |
| MONTH | 9.0 | 5.5 | --- | 0.5 | --- | 5.5 | --- | 10.5 | --- | --- | --- | 14.5 |
| YEAR | MAX | 23.0 | MIN | 0.0 | MEAN | 9.0 | | | | | | |

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | -- | -- | -- | 261 | 44 | 31 | 141 | 6 | 2.3 |
| 2 | 274 | 94 | 70 | 312 | 114 | 96 | 137 | 7 | 2.6 |
| 3 | 245 | 88 | 58 | 305 | 87 | 72 | 140 | 32 | 12 |
| 4 | 220 | 71 | 42 | 226 | 28 | 17 | -- | -- | -- |
| 5 | 211 | 58 | 33 | -- | -- | -- | -- | -- | -- |
| 6 | 206 | 62 | 34 | 196 | 17 | 9.0 | -- | -- | -- |
| 7 | -- | -- | -- | 217 | 26 | 15 | 130 | 400 | 140 |
| 8 | 188 | 33 | 19 | 214 | 12 | 6.9 | 130 | 233 | 82 |
| 9 | 167 | 34 | 15 | 287 | 20 | 15 | -- | -- | -- |
| 10 | -- | -- | -- | -- | -- | -- | 140 | 7 | 2.6 |
| 11 | 196 | 47 | 25 | 188 | 21 | 11 | -- | -- | -- |
| 12 | 170 | 22 | 10 | -- | -- | -- | -- | -- | -- |
| 13 | 165 | 15 | 6.7 | 172 | 11 | 5.1 | 130 | 16 | 5.6 |
| 14 | 165 | 20 | 8.[illegible] | 168 | 11 | 5.0 | -- | -- | -- |
| 15 | 150 | 14 | 5.[illegible] | 162 | 10 | 4.4 | 130 | 44 | 15 |
| 16 | 173 | 12 | 5.6 | 161 | 13 | 5.7 | 130 | 11 | 3.9 |
| 17 | -- | -- | -- | 163 | 10 | 4.4 | -- | -- | -- |
| 18 | 141 | 6 | 2.3 | 157 | 10 | 4.2 | 130 | 12 | 4.2 |
| 19 | -- | -- | -- | 150 | 8 | 3.2 | 130 | 6 | 2.1 |
| 20 | -- | -- | -- | 149 | 10 | 4.0 | 130 | 4 | 1.4 |
| 21 | 192 | 27 | 14 | 149 | 8 | 3.2 | 130 | 4 | 1.4 |
| 22 | 211 | 16 | 9.1 | 146 | 7 | 2.8 | 130 | 6 | 2.1 |
| 23 | 816 | 274 | 604 | -- | -- | -- | 130 | 4 | 1.4 |
| 24 | 339 | 67 | 61 | 145 | 8 | 3.1 | 130 | 5 | 1.8 |
| 25 | 258 | 28 | 20 | 156 | 8 | 3.4 | 130 | 3 | 1.1 |
| 26 | 248 | 27 | 18 | 162 | 10 | 4.6 | 130 | 5 | 1.8 |
| 27 | 214 | 16 | 9.2 | -- | -- | -- | 130 | 13 | 4.6 |
| 28 | 200 | 15 | 8.1 | 141 | 5 | 1.9 | 130 | 7 | 2.5 |
| 29 | 186 | 8 | 4.0 | 142 | 8 | 3.1 | 140 | 5 | 1.9 |
| 30 | 181 | 12 | 5.9 | 136 | 4 | 1.5 | 190 | 38 | 19 |
| 31 | 244 | 19 | 13 | -- | -- | -- | 380 | 118 | 121 |
| TOTAL | 5760 | -- | 1101.5 | 4665 | -- | 332.3 | 3348 | -- | 432.3 |

05407920 KICKAPOO RIVER NEAR ROCKTON, WIS.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | JANUARY | | | FEBRUARY | | | MARCH | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 190 | 10 | 5.1 | -- | -- | -- | -- | -- | -- |
| 2 | 180 | 3 | 1.5 | 540 | 673 | 981 | 420 | 738 | 837 |
| 3 | 190 | -- | -- | 220 | 88 | 52 | 490 | 345 | 456 |
| 4 | 140 | 26 | 9.8 | 180 | 74 | 36 | 348 | 284 | 267 |
| 5 | -- | -- | -- | -- | -- | -- | 224 | 66 | 40 |
| 6 | -- | -- | -- | 120 | 28 | 9.1 | 193 | 40 | 21 |
| 7 | -- | -- | -- | 120 | 26 | 8.4 | 1760 | 3090 | 14700 |
| 8 | 120 | 73 | 24 | 120 | 36 | 12 | 420 | 330 | 374 |
| 9 | 120 | 50 | 16 | 130 | 34 | 12 | 321 | 136 | 118 |
| 10 | 130 | 28 | 9.8 | 130 | 29 | 10 | 264 | 92 | 66 |
| 11 | 140 | 10 | 3.8 | -- | -- | -- | -- | -- | -- |
| 12 | 150 | 9 | 3.6 | 130 | 31 | 11 | 773 | 606 | 1260 |
| 13 | 150 | 10 | 4.1 | 130 | 28 | 9.8 | 501 | 261 | 353 |
| 14 | 160 | 10 | 4.3 | 130 | 29 | 10 | 1400 | 2750 | 10400 |
| 15 | 170 | 6 | 2.8 | 120 | 18 | 5.8 | 775 | 685 | 1430 |
| 16 | 180 | 6 | 2.9 | 110 | 2 | .59 | 472 | 258 | 329 |
| 17 | 240 | 24 | 16 | 120 | 4 | 1.3 | 442 | 174 | 208 |
| 18 | 780 | 488 | 1030 | 120 | 4 | 1.3 | -- | -- | -- |
| 19 | 580 | 198 | 310 | 120 | 9 | 2.9 | 312 | 104 | 88 |
| 20 | 260 | 20 | 14 | 130 | 6 | 2.1 | 302 | 96 | 78 |
| 21 | 240 | 20 | 13 | 130 | 7 | 2.5 | 252 | 76 | 52 |
| 22 | -- | -- | -- | 130 | 2 | .70 | 242 | 62 | 41 |
| 23 | -- | -- | -- | 130 | 9 | 3.2 | 232 | 60 | 38 |
| 24 | 180 | 71 | 35 | -- | -- | -- | 229 | 72 | 45 |
| 25 | 180 | 41 | 20 | -- | -- | -- | 223 | 61 | 37 |
| 26 | 180 | 36 | 17 | -- | -- | -- | -- | -- | -- |
| 27 | 160 | 70 | 30 | -- | -- | -- | 202 | 42 | 23 |
| 28 | -- | -- | -- | -- | -- | -- | 199 | 44 | 24 |
| 29 | 110 | 58 | 17 | -- | -- | -- | 196 | 45 | 24 |
| 30 | 150 | 32 | 13 | -- | -- | -- | 188 | 40 | 20 |
| 31 | 170 | 36 | 17 | -- | -- | -- | 183 | 39 | 19 |
| TOTAL | 5250 | -- | 1619.7 | 3060 | -- | 1171.69 | 11563 | -- | 31348 |

| | APRIL | | | MAY | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 274 | 94 | 69 | -- | -- | -- | 356 | 82 | 79 |
| 2 | 336 | 140 | 127 | 1690 | 1330 | 6070 | -- | -- | -- |
| 3 | 247 | 52 | 35 | 966 | 451 | 1180 | -- | -- | -- |
| 4 | 245 | 28 | 19 | 618 | 192 | 320 | 336 | 53 | 48 |
| 5 | -- | -- | -- | 497 | 138 | 185 | 413 | 150 | 167 |
| 6 | 217 | 32 | 19 | 474 | 116 | 148 | 298 | 56 | 45 |
| 7 | 204 | 22 | 12 | -- | -- | -- | 280 | 61 | 46 |
| 8 | -- | -- | -- | 1700 | 554 | 2540 | 268 | 50 | 36 |
| 9 | -- | -- | -- | 766 | 236 | 488 | 258 | 49 | 34 |
| 10 | -- | -- | -- | 642 | 186 | 322 | -- | -- | -- |
| 11 | 263 | 60 | 43 | 530 | 142 | 203 | 229 | 50 | 31 |
| 12 | 282 | 54 | 41 | 474 | 103 | 132 | 253 | 62 | 42 |
| 13 | 332 | 69 | 62 | 424 | 66 | 76 | 229 | 40 | 25 |
| 14 | 456 | 168 | 207 | 388 | 80 | 84 | 214 | 38 | 22 |
| 15 | 1160 | -- | -- | 361 | 69 | 67 | 212 | 42 | 24 |
| 16 | -- | -- | -- | 339 | 80 | 73 | 244 | 51 | 34 |
| 17 | -- | -- | -- | 324 | 65 | 57 | 377 | 188 | 191 |
| 18 | 794 | 342 | 733 | 309 | 53 | 44 | 266 | 62 | 45 |
| 19 | 616 | 227 | 374 | 316 | 56 | 48 | -- | -- | -- |
| 20 | 523 | 144 | 203 | -- | -- | -- | 229 | 64 | 40 |
| 21 | 1020 | 652 | 1800 | -- | -- | -- | 223 | 68 | 41 |
| 22 | 553 | 181 | 270 | 351 | 64 | 61 | 211 | 68 | 39 |
| 23 | 465 | 128 | 161 | 343 | 49 | 45 | 218 | 76 | 45 |
| 24 | 407 | 92 | 101 | -- | -- | -- | -- | -- | -- |
| 25 | 373 | 92 | 93 | 463 | 153 | 191 | 200 | 78 | 42 |
| 26 | 351 | 76 | 72 | 341 | 98 | 90 | 212 | 80 | 46 |
| 27 | 319 | 70 | 60 | -- | -- | -- | 237 | 112 | 72 |
| 28 | 300 | 54 | 44 | 1500 | 770 | 3150 | 222 | 89 | 53 |
| 29 | 461 | 256 | 319 | 680 | 274 | 503 | -- | -- | -- |
| 30 | 589 | 336 | 534 | 488 | 128 | 169 | -- | -- | -- |
| 31 | -- | -- | -- | 404 | 104 | 113 | -- | -- | -- |
| TOTAL | 10787 | -- | 5403 | 15380 | -- | 16359 | 5985 | -- | 1247 |

05407920 KICKAPOO RIVER NEAR ROCKTON, WIS.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | JULY MEAN DISCHARGE (CFS) | JULY MEAN CONCENTRATION (MG/L) | JULY SEDIMENT DISCHARGE (TONS/DAY) | AUGUST MEAN DISCHARGE (CFS) | AUGUST MEAN CONCENTRATION (MG/L) | AUGUST SEDIMENT DISCHARGE (TONS/DAY) | SEPTEMBER MEAN DISCHARGE (CFS) | SEPTEMBER MEAN CONCENTRATION (MG/L) | SEPTEMBER SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | -- | -- | -- | 161 | 82 | 36 | 157 | 62 | 26 |
| 2 | 210 | 54 | 31 | -- | -- | -- | 151 | 52 | 21 |
| 3 | 206 | 80 | 44 | -- | -- | -- | 204 | 134 | 74 |
| 4 | 183 | 66 | 33 | -- | -- | -- | 185 | 67 | 33 |
| 5 | 168 | 70 | 32 | -- | -- | -- | 164 | 48 | 21 |
| 6 | 167 | 69 | 31 | -- | -- | -- | 154 | 54 | 22 |
| 7 | -- | -- | -- | 186 | 175 | 88 | -- | -- | -- |
| 8 | 163 | 64 | 28 | -- | -- | -- | 149 | 38 | 15 |
| 9 | 159 | 68 | 29 | 229 | 183 | 113 | 177 | 50 | 24 |
| 10 | 165 | 72 | 32 | 166 | 107 | 54 | 321 | 48 | 35 |
| 11 | 157 | 78 | 30 | 168 | 76 | 35 | 162 | 34 | 15 |
| 12 | 155 | 65 | 27 | 157 | 65 | 28 | 158 | 24 | 9.7 |
| 13 | -- | -- | -- | 147 | 56 | 22 | 151 | 36 | 15 |
| 14 | 152 | 72 | 30 | 158 | 996 | 425 | 157 | 40 | 17 |
| 15 | 152 | 74 | 30 | 172 | 168 | 78 | 149 | 45 | 18 |
| 16 | -- | -- | -- | 156 | 74 | 31 | 157 | 30 | 13 |
| 17 | 147 | 72 | 29 | -- | -- | -- | 178 | 22 | 11 |
| 18 | -- | -- | -- | 147 | 66 | 26 | -- | -- | -- |
| 19 | 149 | 78 | 31 | 158 | 81 | 33 | 162 | 20 | 8.7 |
| 20 | 144 | 80 | 31 | 156 | 74 | 31 | 157 | 18 | 7.6 |
| 21 | 158 | 79 | 32 | 143 | 60 | 23 | 155 | 29 | 12 |
| 22 | -- | -- | -- | 144 | 56 | 22 | 298 | 194 | 156 |
| 23 | 158 | 76 | 32 | 555 | -- | -- | 176 | 115 | 55 |
| 24 | 170 | 57 | 26 | 316 | 232 | 198 | 169 | 54 | 25 |
| 25 | -- | -- | -- | 216 | 102 | 59 | 294 | 96 | 53 |
| 26 | 162 | 84 | 37 | 189 | 78 | 40 | -- | -- | -- |
| 27 | 176 | 98 | 47 | 177 | 86 | 41 | 188 | 48 | 24 |
| 28 | 156 | 74 | 31 | -- | -- | -- | 173 | 45 | 21 |
| 29 | -- | -- | -- | 157 | 54 | 27 | 176 | 44 | 21 |
| 30 | 314 | 398 | 337 | 164 | 89 | 39 | 222 | 62 | 37 |
| 31 | 165 | 145 | 65 | -- | -- | -- | -- | -- | -- |
| TOTAL | 3928 | -- | 1075 | 4234 | -- | 1449 | 4846 | -- | 790.0 |

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUS. SED. FALL DIAM. % FINER THAN .002 MM | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. SIEVE DIAM. % FINER THAN .062 MM | SUS. SED. SIEVE DIAM. % FINER THAN .125 MM | SUS. SED. SIEVE DIAM. % FINER THAN .500 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN. 18... | 1000 | .5 | 1410 | 27 | 33 | 42 | 54 | 74 | 93 | 98 | -- |
| APR. 15... | 1430 | -- | -- | 23 | 28 | 34 | 46 | 68 | 83 | 91 | 100 |
| AUG. 23... | 1730 | -- | -- | 24 | 31 | 39 | 50 | 71 | 84 | 92 | 100 |

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | BED MAT. SIEVE DIAM. % FINER THAN .062 MM | BED MAT. SIEVE DIAM. % FINER THAN .125 MM | BED MAT. SIEVE DIAM. % FINER THAN .250 MM | BED MAT. SIEVE DIAM. % FINER THAN .500 MM | BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT. 04... | 1100 | 220 | 2 | 5 | 14 | 76 | 99 | 100 | 100 | 100 |
| JAN. 11... | 1500 | 222 | 20 | 34 | 50 | 90 | 99 | 100 | 100 | -- |
| APR. 19... | 1100 | 577 | 23 | 53 | 75 | 99 | 100 | 100 | 100 | 100 |
| SEP. 08... | 1300 | -- | 3 | 5 | 9 | 69 | 99 | 100 | 100 | 100 |

## 05408000 KICKAPOO RIVER AT LA FARGE, WIS.

LOCATION.--Lat 43°34'27", long 90°38'35", temperature recorder on east-west quarter section line in NW¼ sec.29, T.13 N., R.2 W., Vernon County, on left bank 10 ft (3.05 m) upstream from bridge on State Highway 82, in La Farge, 0.3 mi (0.48 km) upstream from Otter Creek, and 1.3 mi (2.09 km) downstream from powerplant.

DRAINAGE AREA.--266 mi² (689 km²).

PERIOD OF RECORD.--Water temperatures: July 1971 to September 1973.
Sediment records: October 1971 to September 1973.

EXTREMES, 1972-73.--Water temperatures: Maximum daily, 25.0°C July 8, 1973; minimum daily, freezing point on many days during winter period.
Sediment discharge: Maximum daily, 10,200 tons (9,253 t), Mar. 7, 1973; minimum daily, 0 ton (0 t), Jan. 28, 1973.
1971-73.--Water temperatures: Maximum daily, 26.5°C July 22, Aug. 18, 1972; minimum daily, freezing point many days during winter period.
Specific conductance: Maximum daily, 500 micromhos on many days during year; minimum daily, 170 micromhos Apr. 17, 1973.
Turbidity: Maximum daily, 150 Jackson Turbidity Units (JTU) Mar. 7, 1973; minimum daily, 0 JTU on May 4-7, 1973.
Sediment discharge: Maximum daily, 10,500 tons (9,526 t) Apr. 13, 1972; minimum daily, 0 ton (0 t) Dec. 25, 1971, Jan. 28, 1973.

### TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Continuous recorder

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 17.0 | 14.5 | 16.0 | 7.0 | 6.5 | 6.5 | 0.5 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 |
| 2 | 18.0 | 16.5 | 17.0 | 7.5 | 7.0 | 7.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3 | 19.0 | 18.0 | 18.5 | 7.5 | 6.5 | 7.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4 | 19.0 | 18.5 | 19.0 | 6.5 | 6.5 | 6.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5 | 18.5 | 17.0 | 18.0 | 6.5 | 5.5 | 6.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 6 | 18.0 | 16.5 | 17.5 | 7.5 | 6.5 | 7.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 7 | 17.5 | 15.0 | 16.5 | 8.0 | 7.0 | 7.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 8 | 16.5 | 15.5 | 16.0 | 7.0 | 6.0 | 6.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 9 | 15.5 | 14.5 | 15.0 | 6.0 | 6.0 | 6.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10 | 14.5 | 14.0 | 14.5 | 6.5 | 6.0 | 6.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 11 | 15.5 | 13.0 | 15.0 | 7.0 | 6.5 | 6.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 12 | 15.5 | 15.0 | 15.5 | 6.5 | 6.0 | 6.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 13 | 15.0 | 14.0 | 14.5 | 6.0 | 4.5 | 5.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 14 | 14.5 | 14.0 | 14.5 | 4.5 | 3.0 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15 | 14.0 | 11.5 | 12.5 | 3.0 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 16 | 11.5 | 11.0 | 11.5 | 2.5 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17 | 11.0 | 10.0 | 10.5 | 3.0 | 2.5 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 18 | 10.0 | 8.5 | 9.5 | 2.5 | 2.5 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 19 | 8.5 | 6.5 | 8.0 | 2.5 | 1.5 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20 | 7.0 | 5.5 | 6.5 | 2.5 | 1.5 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 21 | 7.0 | 6.5 | 6.5 | 3.0 | 2.5 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 22 | 8.0 | 7.0 | 7.5 | 2.5 | 2.0 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 7.0 | 5.5 | 6.0 | 2.0 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 24 | 6.0 | 5.0 | 5.5 | 2.0 | 1.5 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25 | 6.5 | 2.5 | 6.0 | 3.0 | 2.0 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 26 | 8.5 | 6.5 | 7.5 | 3.0 | 2.5 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | 9.0 | 8.5 | 8.5 | 2.5 | 2.4 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 28 | 8.5 | 7.5 | 8.0 | 2.0 | 0.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 29 | 7.0 | 6.0 | 6.5 | 0.5 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 6.0 | 5.5 | 6.0 | 1.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 6.5 | 6.0 | 6.0 | --- | --- | --- | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| MONTH | 19.0 | 2.5 | 11.5 | 8.0 | 0.0 | 4.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

## 05408000 KICKAPOO RIVER AT LA FARGE, WIS.--Continued

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.5 | 6.5 | 5.5 | 6.0 | 10.0 | 8.0 | 9.0 |
| 2 | 0.0 | 0.0 | 0.0 | 2.0 | 1.0 | 1.5 | 5.5 | 5.0 | 5.5 | 10.0 | 7.5 | 9.0 |
| 3 | 0.0 | 0.0 | 0.0 | 3.5 | 2.0 | 3.0 | 5.0 | 4.5 | 5.0 | 8.5 | 6.5 | 7.5 |
| 4 | 0.5 | 0.0 | 0.0 | 4.0 | 3.5 | 3.5 | 5.0 | 4.5 | 5.0 | 10.0 | 8.0 | 9.0 |
| 5 | 2.0 | 0.5 | 1.5 | 4.0 | 3.0 | 3.5 | 6.0 | 3.5 | 5.0 | 10.0 | 9.0 | 9.5 |
| 6 | 2.5 | 2.0 | 2.0 | 3.5 | 3.0 | 3.5 | 8.0 | 6.0 | 7.0 | 9.5 | 8.5 | 9.0 |
| 7 | 2.0 | 0.0 | 1.0 | 3.5 | 2.0 | 2.5 | 7.5 | 5.5 | 7.0 | 10.0 | 9.5 | 10.0 |
| 8 | 0.0 | 0.0 | 0.0 | 4.0 | 2.0 | 3.0 | 5.5 | 2.0 | 4.0 | 11.5 | 10.0 | 10.5 |
| 9 | 0.0 | 0.0 | 0.0 | 4.0 | 3.5 | 3.5 | 2.0 | 0.0 | 0.0 | 12.0 | 11.0 | 11.5 |
| 10 | 0.0 | 0.0 | 0.0 | 3.0 | 3.0 | 3.0 | 2.0 | 0.0 | 0.5 | 13.0 | 11.5 | 12.0 |
| 11 | 0.5 | 0.0 | 0.0 | 3.0 | 2.0 | 2.5 | 1.5 | 0.0 | 1.0 | 12.5 | 11.5 | 12.0 |
| 12 | 0.5 | 0.0 | 0.0 | 5.0 | 3.0 | 4.0 | 4.5 | 2.0 | 3.0 | 12.0 | 10.5 | 11.0 |
| 13 | 0.0 | 0.0 | 0.0 | 6.5 | 5.0 | 5.5 | 5.5 | 3.0 | 4.5 | 10.5 | 9.5 | 10.0 |
| 14 | 0.0 | 0.0 | 0.0 | 7.5 | 6.0 | 7.0 | 7.5 | 4.5 | 6.0 | 10.5 | 9.0 | 10.0 |
| 15 | 0.0 | 0.0 | 0.0 | 7.5 | 6.5 | 7.5 | 7.0 | 5.5 | 6.5 | 11.5 | 8.5 | 10.0 |
| 16 | 0.0 | 0.0 | 0.0 | 6.5 | 4.0 | 5.0 | 6.5 | 5.0 | 6.0 | 12.5 | 11.0 | 12.0 |
| 17 | 0.0 | 0.0 | 0.0 | 4.0 | 3.0 | 3.5 | 7.5 | 4.0 | 6.0 | 12.5 | 10.0 | 11.5 |
| 18 | 0.0 | 0.0 | 0.0 | 3.5 | 2.0 | 3.0 | 9.0 | 6.5 | 8.0 | 13.5 | 11.5 | 12.5 |
| 19 | 0.0 | 0.0 | 0.0 | 4.0 | 2.5 | 3.5 | 11.5 | 9.0 | 10.5 | 14.0 | 13.5 | 14.0 |
| 20 | 0.0 | 0.0 | 0.0 | 4.0 | 3.5 | 4.0 | 12.0 | 11.5 | 12.0 | 15.0 | 12.5 | 13.5 |
| 21 | 0.5 | 0.0 | 0.0 | 4.5 | 2.5 | 3.5 | 13.5 | 10.0 | 12.5 | 14.5 | 13.0 | 14.0 |
| 22 | 0.5 | 0.0 | 0.0 | 5.0 | 3.5 | 4.0 | 13.5 | 11.5 | 12.5 | 13.0 | 12.5 | 12.5 |
| 23 | 0.5 | 0.0 | 0.0 | 7.0 | 4.5 | 5.5 | 11.5 | 9.5 | 10.5 | 14.5 | 12.0 | 13.0 |
| 24 | 0.0 | 0.0 | 0.0 | 7.0 | 6.5 | 7.0 | 11.0 | 9.0 | 10.5 | 15.0 | 14.0 | 14.5 |
| 25 | 0.0 | 0.0 | 0.0 | 7.0 | 6.0 | 6.5 | 11.0 | 10.0 | 10.5 | 14.5 | 12.5 | 13.5 |
| 26 | 0.5 | 0.0 | 0.0 | 8.5 | 6.0 | 7.5 | 11.5 | 9.0 | 10.5 | 13.5 | 11.5 | 12.5 |
| 27 | 0.5 | 0.0 | 0.0 | 8.5 | 6.5 | 7.5 | 11.0 | 9.5 | 10.5 | 13.5 | 12.0 | 13.0 |
| 28 | .5 | 0.0 | 0.5 | 8.5 | 7.0 | 7.5 | 11.0 | 8.5 | 10.0 | 12.0 | 11.0 | 11.5 |
| 29 | --- | --- | --- | 8.5 | 7.0 | 8.0 | 11.0 | 8.5 | 10.0 | 13.5 | 11.0 | 12.0 |
| 30 | --- | --- | --- | 9.5 | 7.0 | 8.5 | 8.5 | 8.0 | 8.0 | 15.5 | 13.0 | 14.0 |
| 31 | --- | --- | --- | 9.0 | 6.5 | 7.5 | --- | --- | --- | 16.5 | 14.0 | 15.5 |
| MONTH | 2.5 | 0.0 | 0.5 | 9.5 | 0.0 | 4.5 | 13.5 | 0.0 | 7.0 | 16.5 | 6.5 | 11.5 |

| | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 18.5 | 15.5 | 17.0 | 19.5 | 16.5 | 18.5 | 19.0 | 17.5 | 18.5 | 23.0 | 21.0 | 22.0 |
| 2 | 19.0 | 17.0 | 18.0 | 22.0 | 19.5 | 21.0 | 19.5 | 17.5 | 19.0 | 22.0 | 21.5 | 22.0 |
| 3 | 19.0 | 17.5 | 18.0 | 22.5 | 21.0 | 21.5 | 19.5 | 16.5 | 18.5 | 21.5 | 20.5 | 21.0 |
| 4 | 19.0 | 17.0 | 18.0 | 22.0 | 21.0 | 21.5 | 19.5 | 16.5 | 19.0 | 21.0 | 20.0 | 20.5 |
| 5 | 19.5 | 17.5 | 18.5 | 21.5 | 20.5 | 21.0 | 21.5 | 19.0 | 20.0 | 20.5 | 19.5 | 20.0 |
| 6 | 19.0 | 17.0 | 18.0 | 21.5 | 20.5 | 21.0 | 21.0 | 20.0 | 20.5 | 19.5 | 17.0 | 18.5 |
| 7 | 19.0 | 17.5 | 18.5 | 23.0 | 20.5 | 22.0 | 20.5 | 19.0 | 20.0 | 17.5 | 16.5 | 17.0 |
| 8 | 20.0 | 18.5 | 19.5 | 25.0 | 22.5 | 23.5 | 21.0 | 20.5 | 21.0 | 16.5 | 16.0 | 16.5 |
| 9 | 20.5 | 18.5 | 19.5 | 24.0 | 22.0 | 23.5 | 21.0 | 20.0 | 20.5 | 16.5 | 15.5 | 16.0 |
| 10 | 22.0 | 19.5 | 21.0 | 22.5 | 21.0 | 22.0 | 21.0 | 19.0 | 20.0 | 17.0 | 16.0 | 16.5 |
| 11 | 23.0 | 21.5 | 22.0 | 22.0 | 20.5 | 21.5 | 21.0 | 19.5 | 20.0 | 17.0 | 16.0 | 16.5 |
| 12 | 22.0 | 20.5 | 21.5 | 23.0 | 21.0 | 22.0 | 21.0 | 19.5 | 20.0 | 16.0 | 15.5 | 15.5 |
| 13 | 20.5 | 18.5 | 19.5 | 23.5 | 22.0 | 23.0 | 20.0 | 19.0 | 19.5 | 15.5 | 15.0 | 15.0 |
| 14 | 20.5 | 18.5 | 19.5 | 22.0 | 20.0 | 21.0 | 19.0 | 18.0 | 18.5 | 16.0 | 14.5 | 15.0 |
| 15 | 20.0 | 19.0 | 19.5 | 20.5 | 19.0 | 19.5 | 19.5 | 16.0 | 18.5 | 15.0 | 13.0 | 14.0 |
| 16 | 19.5 | 18.5 | 19.0 | 20.0 | 18.5 | 19.5 | 20.0 | 15.5 | 19.5 | 13.0 | 12.0 | 12.5 |
| 17 | 19.5 | 18.0 | 19.0 | 21.0 | 19.0 | 20.0 | 21.0 | 19.5 | 20.0 | 12.5 | 11.5 | 12.0 |
| 18 | 19.0 | 17.0 | 18.5 | 21.5 | 20.0 | 21.0 | 21.5 | 20.0 | 20.5 | 12.5 | 11.0 | 11.5 |
| 19 | 19.0 | 16.5 | 18.0 | 23.0 | 21.0 | 22.0 | 20.5 | 20.0 | 20.5 | 12.0 | 11.5 | 11.5 |
| 20 | 19.5 | 18.0 | 18.5 | 22.0 | 20.5 | 21.5 | 20.5 | 19.0 | 20.0 | 12.0 | 11.0 | 11.5 |
| 21 | 19.0 | 16.5 | 17.5 | 20.5 | 18.0 | 19.5 | 19.5 | 16.0 | 18.5 | 11.5 | 11.0 | 11.0 |
| 22 | 18.5 | 16.0 | 17.0 | 18.5 | 17.0 | 18.0 | 17.5 | 16.0 | 16.5 | 13.5 | 11.5 | 12.5 |
| 23 | 19.5 | 17.5 | 18.5 | 20.0 | 18.5 | 19.5 | 16.0 | 15.5 | 15.5 | 14.0 | 13.0 | 13.5 |
| 24 | 20.0 | 18.0 | 19.0 | 21.5 | 20.0 | 21.0 | 16.0 | 15.5 | 16.0 | 14.0 | 12.5 | 13.0 |
| 25 | 19.5 | 18.0 | 19.0 | 23.0 | 21.0 | 22.0 | 18.5 | 16.0 | 17.0 | 15.5 | 13.5 | 15.0 |
| 26 | 19.5 | 16.5 | 19.0 | 22.5 | 20.5 | 21.5 | 21.5 | 16.0 | 19.5 | 17.0 | 15.5 | 16.0 |
| 27 | 19.5 | 18.0 | 18.5 | 20.5 | 19.5 | 20.5 | 23.0 | 21.0 | 21.5 | 16.5 | 16.0 | 16.5 |
| 28 | 19.0 | 16.5 | 18.0 | 20.5 | 19.5 | 20.0 | 23.0 | 21.5 | 22.0 | 16.0 | 15.0 | 15.5 |
| 29 | 16.5 | 15.0 | 15.5 | 21.0 | 19.5 | 20.0 | 23.5 | 21.5 | 22.5 | 15.0 | 14.5 | 14.5 |
| 30 | 17.0 | 14.5 | 16.0 | 20.5 | 19.5 | 20.0 | 22.5 | 21.5 | 22.0 | 14.0 | 14.0 | 14.0 |
| 31 | --- | --- | --- | 19.5 | 18.5 | 19.0 | 22.0 | 21.0 | 21.5 | --- | --- | --- |
| MONTH | 23.0 | 14.5 | 18.5 | 25.0 | 16.5 | 21.0 | 23.5 | 15.5 | 19.5 | 23.0 | 11.0 | 15.5 |
| YEAR | 25.0 | 0.0 | 9.5 | | | | | | | | | |

## 05408000 KICKAPOO RIVER AT LA FARGE, WIS.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY)

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 410 | 340 | 400 | 380 | --- | --- | 440 | --- | 440 | --- | 415 | 400 |
| 2 | --- | 340 | 400 | 360 | 380 | 350 | --- | 295 | --- | --- | --- | 400 |
| 3 | 405 | 370 | 400 | 340 | 310 | 340 | 410 | 240 | --- | 400 | --- | 360 |
| 4 | 385 | 375 | --- | --- | 400 | 340 | 415 | 350 | 425 | 410 | --- | 375 |
| 5 | 400 | --- | --- | --- | --- | 380 | --- | 400 | 395 | 430 | --- | 405 |
| 6 | 410 | 340 | --- | --- | 445 | 440 | 410 | 400 | 420 | 410 | --- | 405 |
| 7 | 425 | 400 | 405 | --- | 460 | 320 | 430 | --- | 425 | 420 | 425 | --- |
| 8 | 425 | 400 | 400 | 410 | 500 | 300 | --- | 260 | 450 | 430 | --- | 400 |
| 9 | 410 | 400 | 400 | 400 | 500 | 400 | --- | 350 | 425 | 440 | 390 | 400 |
| 10 | 415 | --- | 400 | 410 | 500 | 400 | 410 | 370 | --- | 410 | 370 | 400 |
| 11 | 420 | 350 | --- | 420 | --- | 280 | 400 | 400 | 425 | 420 | 400 | 400 |
| 12 | 410 | --- | --- | 445 | 475 | 290 | 410 | 400 | 420 | 440 | 450 | 410 |
| 13 | 410 | 360 | 400 | 435 | 465 | 350 | 400 | 425 | 410 | --- | 445 | 400 |
| 14 | 425 | 360 | --- | 425 | 450 | 390 | 390 | 410 | 410 | 420 | 310 | 410 |
| 15 | 423 | 345 | 400 | 400 | 450 | 390 | 500 | 430 | 380 | 440 | 360 | 410 |
| 16 | --- | 350 | 420 | 400 | 460 | 360 | 290 | 430 | 370 | --- | 425 | 395 |
| 17 | --- | 400 | --- | 375 | 500 | 400 | 170 | 435 | 380 | 430 | --- | --- |
| 18 | --- | 390 | 415 | 240 | 500 | --- | 300 | 440 | 400 | --- | 430 | 400 |
| 19 | --- | 350 | 410 | 240 | 475 | 445 | 350 | 400 | 430 | --- | 435 | 405 |
| 20 | --- | 350 | 400 | 325 | 460 | 440 | 380 | --- | 390 | 430 | 440 | 395 |
| 21 | --- | 360 | 400 | 400 | 450 | 450 | 340 | --- | 420 | 430 | 440 | 415 |
| 22 | --- | --- | 380 | --- | --- | 425 | 375 | 450 | 430 | --- | 450 | 400 |
| 23 | --- | 360 | 400 | --- | --- | 415 | 400 | 450 | 410 | 430 | 400 | 345 |
| 24 | --- | 350 | 390 | 450 | --- | 445 | 400 | --- | --- | 410 | 290 | 380 |
| 25 | --- | 380 | 380 | 475 | --- | 410 | 430 | 440 | 410 | 440 | 400 | 390 |
| 26 | 370 | 400 | 380 | 455 | --- | --- | 450 | 440 | 390 | --- | 445 | --- |
| 27 | 375 | --- | 390 | 450 | --- | 425 | 430 | --- | 420 | 440 | 445 | 405 |
| 28 | 380 | --- | 400 | --- | --- | 420 | 440 | 340 | 400 | 445 | --- | 410 |
| 29 | 380 | 375 | 390 | 455 | --- | 425 | 425 | 340 | --- | --- | 450 | 420 |
| 30 | 355 | 370 | 380 | 500 | --- | 420 | 320 | 400 | --- | 445 | 390 | 410 |
| 31 | 350 | --- | 275 | 440 | --- | 410 | --- | 425 | --- | 400 | --- | --- |
| MONTH | --- | 371 | --- | --- | --- | 382 | 380 | 390 | 411 | --- | --- | 398 |
| YEAR | MAX | 500 | MIN | 170 | MEAN | 400 | | | | | | |

TURBIDITY (JTU) • WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY)

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4 | 6 | 3 | 4 | --- | --- | 15 | --- | 10 | --- | 20 | 20 |
| 2 | --- | 15 | 1 | 3 | 55 | 4 | 1 | 55 | --- | --- | --- | 15 |
| 3 | 30 | 25 | 2 | 3 | 20 | 15 | 15 | 5 | --- | 15 | --- | 30 |
| 4 | 75 | 4 | --- | --- | 8 | 20 | 10 | 8 | 9 | 10 | --- | 15 |
| 5 | 35 | --- | --- | --- | --- | 25 | --- | 8 | 35 | 7 | --- | 10 |
| 6 | 25 | 4 | --- | --- | 5 | 4 | 9 | 9 | 10 | 8 | --- | 9 |
| 7 | 30 | 6 | 2 | --- | 2 | 150 | 8 | 8 | 10 | 15 | 25 | --- |
| 8 | 30 | 5 | 3 | 7 | 4 | 50 | --- | 60 | 5 | 8 | --- | 10 |
| 9 | 25 | 5 | 2 | 8 | 4 | 4 | --- | 35 | 8 | 9 | 30 | 15 |
| 10 | 20 | --- | 3 | 4 | 3 | 15 | 10 | 30 | --- | 10 | 20 | 8 |
| 11 | 25 | 4 | --- | 3 | --- | 40 | 9 | 26 | 7 | 15 | 20 | 8 |
| 12 | 50 | --- | --- | 1 | 3 | 50 | 6 | 25 | 4 | 20 | 10 | 6 |
| 13 | 25 | 4 | 2 | 2 | 4 | 5 | 5 | 15 | 5 | --- | 15 | 10 |
| 14 | 15 | 2 | --- | 1 | 3 | 25 | 15 | 15 | 10 | 25 | 70 | 10 |
| 15 | 10 | 2 | 1 | 2 | 2 | 50 | 40 | 15 | 4 | 20 | 50 | 8 |
| 16 | --- | 2 | 2 | 3 | 3 | 40 | 55 | 8 | 15 | --- | 30 | 8 |
| 17 | --- | 3 | --- | 7 | 4 | 35 | 55 | 4 | 40 | 15 | --- | --- |
| 18 | --- | 2 | 3 | 45 | 3 | --- | 45 | 4 | 20 | --- | 25 | 6 |
| 19 | --- | 2 | 2 | 25 | 4 | 20 | 30 | 8 | 15 | --- | 15 | 6 |
| 20 | --- | 2 | 2 | 15 | 4 | 20 | 30 | --- | 20 | 20 | 15 | 5 |
| 21 | --- | 2 | 2 | 5 | 3 | 20 | 50 | --- | 20 | 10 | 15 | 4 |
| 22 | --- | --- | 2 | --- | --- | 10 | 40 | 7 | 25 | --- | 25 | 40 |
| 23 | --- | 3 | 1 | --- | --- | 15 | 30 | 8 | 25 | 15 | 50 | 20 |
| 24 | --- | 2 | 2 | 4 | --- | 20 | 20 | --- | --- | 15 | 45 | 3 |
| 25 | --- | 2 | 4 | 4 | --- | 15 | 15 | 15 | 25 | 15 | 25 | 9 |
| 26 | 5 | 3 | 2 | 5 | --- | --- | 15 | 4 | 30 | --- | 9 | --- |
| 27 | 4 | --- | 3 | 5 | --- | 15 | 15 | --- | 15 | 15 | 15 | 9 |
| 28 | 5 | --- | 10 | --- | --- | 10 | 10 | 50 | 15 | 15 | --- | 15 |
| 29 | 3 | 2 | 7 | 3 | --- | 10 | 20 | 45 | --- | --- | 20 | 10 |
| 30 | 5 | 2 | 5 | 2 | --- | 10 | 50 | 25 | --- | 20 | 30 | 15 |
| 31 | 5 | --- | 20 | 2 | --- | 15 | --- | 20 | --- | 35 | --- | --- |
| MONTH | --- | 4 | --- | --- | --- | 25 | 25 | 20 | 15 | --- | --- | 10 |
| YEAR | MAX | 150 | MIN | 0 | MEAN | 15 | | | | | | |

05408000 KICKAPOO RIVER AT LA FARGE, WIS.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 268 | -- | -- | 240 | 23 | 15 | 142 | 5 | 1.9 |
| 2 | 245 | 124 | 82 | 293 | 28 | 22 | 140 | 5 | 1.9 |
| 3 | 220 | 117 | 69 | 291 | 58 | 46 | 140 | 11 | 4.2 |
| 4 | 206 | 102 | 57 | 218 | 16 | 9.4 | 130 | -- | -- |
| 5 | 186 | 102 | 51 | 201 | 16 | 8.7 | 130 | -- | -- |
| 6 | 182 | 54 | 27 | 194 | -- | -- | 130 | -- | -- |
| 7 | 190 | 34 | 18 | 212 | 9 | 5.2 | 120 | 5 | 1.6 |
| 8 | 177 | 24 | 11 | 221 | 12 | 7.2 | 130 | 6 | 2.1 |
| 9 | 160 | 16 | 7.2 | 194 | 10 | 5.2 | 130 | 4 | 1.4 |
| 10 | 160 | 29 | 13 | 186 | -- | -- | 130 | 5 | 1.8 |
| 11 | 140 | 28 | 14 | 173 | 8 | 3.7 | 130 | -- | -- |
| 12 | 140 | 64 | 31 | 173 | -- | -- | 130 | -- | -- |
| 13 | 162 | 50 | 22 | 169 | 10 | 4.6 | 130 | 4 | 1.4 |
| 14 | 157 | 14 | 5.9 | 163 | 6 | 2.6 | 130 | -- | -- |
| 15 | 150 | 10 | 4.1 | 156 | 10 | 4.2 | 130 | 6 | 2.1 |
| 16 | 160 | 10 | 4.3 | 157 | 8 | 3.4 | 130 | 4 | 1.4 |
| 17 | 163 | -- | -- | 159 | 8 | 3.4 | 140 | -- | -- |
| 18 | 144 | 31 | 12 | 156 | 7 | 2.9 | 140 | 6 | 2.3 |
| 19 | 141 | -- | -- | 150 | 6 | 2.4 | 130 | 4 | 1.4 |
| 20 | 141 | 8 | 3.0 | 149 | 6 | 2.4 | 130 | 4 | 1.4 |
| 21 | 184 | 14 | 7.0 | 149 | 8 | 3.2 | 130 | 2 | .70 |
| 22 | 221 | 12 | 7.2 | 146 | 6 | 2.4 | 130 | 4 | 1.4 |
| 23 | 676 | 265 | 484 | 144 | -- | -- | 130 | 2 | .70 |
| 24 | 394 | 38 | 40 | 144 | 6 | 2.3 | 130 | 4 | 1.4 |
| 25 | 273 | 14 | 10 | 150 | 8 | 3.2 | 130 | 6 | 2.1 |
| 26 | 238 | 10 | 6.4 | 157 | 10 | 4.2 | 130 | 3 | 1.1 |
| 27 | 223 | 10 | 6.0 | 150 | -- | -- | 130 | 4 | 1.4 |
| 28 | 199 | 6 | 3.2 | 142 | 2 | .77 | 130 | 76 | 27 |
| 29 | 189 | 5 | 2.6 | 130 | 4 | 1.4 | 140 | 38 | 14 |
| 30 | 174 | 4 | 1.9 | 140 | 5 | 1.9 | 200 | 20 | 11 |
| 31 | 204 | 6 | 3.3 | -- | -- | -- | 400 | 100 | 108 |
| TOTAL | 6505 | -- | 1003.1 | 5307 | -- | 167.67 | 4422 | -- | 193.70 |

| | JANUARY | | | FEBRUARY | | | MARCH | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 200 | 14 | 7.6 | 250 | -- | -- | 200 | -- | -- |
| 2 | 190 | 15 | 7.7 | 560 | 777 | 1170 | 450 | 400 | 497 |
| 3 | 200 | 12 | 6.5 | 230 | 74 | 46 | 381 | 102 | 105 |
| 4 | 150 | 4 | 1.6 | 190 | 45 | 23 | 351 | 96 | 91 |
| 5 | 130 | -- | -- | 160 | -- | -- | 212 | 34 | 19 |
| 6 | 120 | -- | -- | 130 | 19 | 6.7 | 221 | 56 | 33 |
| 7 | 130 | -- | -- | 130 | 12 | 4.2 | 1310 | 2880 | 10200 |
| 8 | 130 | 28 | 9.8 | 130 | 18 | 6.3 | 713 | 224 | 431 |
| 9 | 130 | 42 | 15 | 140 | 25 | 9.5 | 300 | 58 | 47 |
| 10 | 140 | 153 | 58 | 140 | 17 | 6.4 | 295 | 30 | 24 |
| 11 | 150 | 6 | 2.4 | 140 | 20 | 7.6 | 1630 | 1780 | 7830 |
| 12 | 160 | 6 | 2.6 | 140 | 12 | 4.5 | 952 | 872 | 2260 |
| 13 | 160 | 4 | 1.7 | 140 | -- | -- | 444 | 241 | 292 |
| 14 | 170 | 4 | 1.8 | 140 | 17 | 6.4 | 1280 | 2460 | 8570 |
| 15 | 180 | 5 | 2.4 | 130 | 16 | 5.6 | 684 | 760 | 1400 |
| 16 | 190 | 3 | 1.5 | 120 | 12 | 3.9 | 440 | 246 | 292 |
| 17 | 250 | 19 | 13 | 130 | 11 | 3.9 | 382 | 171 | 178 |
| 18 | 780 | 394 | 851 | 130 | 9 | 3.2 | 300 | -- | -- |
| 19 | 500 | 192 | 311 | 130 | 8 | 2.8 | 260 | 90 | 66 |
| 20 | 270 | 27 | 20 | 140 | 8 | 3.0 | 247 | 79 | 53 |
| 21 | 250 | 19 | 13 | 140 | 7 | 2.6 | 230 | 60 | 37 |
| 22 | 240 | -- | -- | 140 | 8 | 3.0 | 217 | 54 | 32 |
| 23 | 210 | -- | -- | 140 | 8 | 3.0 | 213 | 52 | 30 |
| 24 | 190 | 14 | 7.2 | 140 | -- | -- | 207 | 62 | 35 |
| 25 | 190 | 15 | 7.7 | 140 | -- | -- | 204 | 50 | 28 |
| 26 | 190 | 14 | 7.2 | 140 | -- | -- | 196 | -- | -- |
| 27 | 200 | 2 | 1.1 | 140 | -- | -- | 188 | 40 | 20 |
| 28 | 170 | 0 | 0 | 140 | -- | -- | 184 | 42 | 21 |
| 29 | 120 | 18 | 5.8 | -- | -- | -- | 182 | 36 | 18 |
| 30 | 160 | 32 | 14 | -- | -- | -- | 176 | 37 | 18 |
| 31 | 180 | 35 | 17 | -- | -- | -- | 173 | 40 | 19 |
| TOTAL | 6550 | -- | 1386.6 | 4520 | -- | 1321.6 | 13230 | -- | 32646 |

05408000 KICKAPOO RIVER AT LA FARGE, WIS.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | APRIL | | | MAY | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 259 | 54 | 38 | 854 | -- | -- | 351 | 74 | 70 |
| 2 | 271 | 165 | 121 | 1400 | 1000 | 3780 | 325 | -- | -- |
| 3 | 221 | 58 | 35 | 1080 | 512 | 1510 | 384 | -- | -- |
| 4 | 233 | 42 | 26 | 582 | 169 | 266 | 355 | 44 | 42 |
| 5 | 215 | -- | -- | 483 | 112 | 146 | 396 | 158 | 169 |
| 6 | 200 | 44 | 24 | 454 | 90 | 111 | 319 | 46 | 40 |
| 7 | 192 | 22 | 11 | 1170 | -- | -- | 289 | 48 | |
| 8 | 190 | -- | -- | 1540 | 781 | 3250 | 279 | 39 | |
| 9 | 184 | -- | -- | 760 | 218 | 449 | 270 | 36 | 26 |
| 10 | 159 | 52 | 22 | 604 | 158 | 258 | 261 | -- | -- |
| 11 | 259 | 40 | 28 | 504 | 123 | 167 | 255 | 35 | 24 |
| 12 | 262 | 52 | 37 | 456 | 100 | 123 | 264 | 54 | 38 |
| 13 | 302 | 64 | 52 | 408 | 68 | 75 | 250 | 43 | 29 |
| 14 | 444 | 143 | 171 | 378 | 54 | 55 | 240 | 34 | 22 |
| 15 | 1080 | -- | -- | 355 | 46 | 44 | 247 | 42 | 28 |
| 16 | 3390 | 558 | 5110 | 341 | 60 | 55 | 270 | 53 | 37 |
| 17 | 2360 | 376 | 2400 | 326 | 41 | 36 | 268 | 154 | 149 |
| 18 | 740 | 405 | 809 | 313 | 40 | 34 | 398 | 60 | 47 |
| 19 | 565 | 233 | 355 | 343 | 44 | 41 | 286 | -- | -- |
| 20 | 582 | 172 | 270 | 322 | -- | -- | 248 | 68 | 44 |
| 21 | 882 | 706 | 1680 | 311 | -- | -- | 242 | 65 | 41 |
| 22 | 544 | 206 | 303 | 349 | 46 | 43 | 237 | 64 | 40 |
| 23 | 442 | 124 | 148 | 334 | 34 | 30 | 240 | 70 | 45 |
| 24 | 386 | 93 | 97 | 313 | -- | -- | 235 | -- | -- |
| 25 | 357 | 86 | 83 | 418 | 124 | 139 | 217 | 73 | 43 |
| 26 | 338 | 66 | 60 | 340 | 60 | 55 | 196 | 74 | 40 |
| 27 | 311 | 59 | 50 | 355 | -- | -- | 242 | 37 | 25 |
| 28 | 298 | 46 | 37 | 1260 | 908 | 3090 | 230 | 34 | 22 |
| 29 | 523 | 96 | 136 | 773 | 324 | 674 | 217 | -- | -- |
| 30 | 735 | 406 | 809 | 466 | 132 | 165 | 215 | -- | -- |
| 31 | -- | -- | -- | 390 | 94 | 98 | -- | -- | -- |
| TOTAL | 16924 | -- | 12912 | 17982 | -- | 14694 | 8226 | -- | 1021 |

| | JULY | | | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
| 1 | 209 | -- | -- | 177 | 64 | 31 | 166 | 52 | 23 |
| 2 | 218 | -- | -- | 169 | -- | -- | 171 | 72 | 33 |
| 3 | 210 | 35 | 20 | 160 | -- | -- | 209 | 95 | 54 |
| 4 | 190 | 26 | 13 | 163 | -- | -- | 188 | 45 | 23 |
| 5 | 185 | 28 | 14 | 169 | -- | -- | 169 | 35 | 16 |
| 6 | 200 | 28 | 15 | 156 | -- | -- | 148 | 40 | 16 |
| 7 | 169 | 64 | 29 | 217 | 118 | 69 | 159 | -- | -- |
| 8 | 180 | 30 | 15 | 252 | -- | -- | 156 | 30 | 13 |
| 9 | 192 | 36 | 19 | 319 | 78 | 67 | 176 | 92 | 44 |
| 10 | 189 | 47 | 24 | 247 | 67 | 45 | 170 | 38 | 17 |
| 11 | 182 | 44 | 22 | 200 | 49 | 26 | 163 | 28 | 12 |
| 12 | 170 | 44 | 20 | 159 | 46 | 20 | 156 | 28 | 11 |
| 13 | 180 | -- | -- | 170 | 53 | 24 | 148 | 37 | 16 |
| 14 | 171 | 48 | 22 | 311 | 343 | 288 | 158 | 56 | 24 |
| 15 | 157 | 48 | 20 | 180 | 104 | 51 | 161 | 29 | 12 |
| 16 | 163 | -- | -- | 160 | 87 | 38 | 159 | 59 | 26 |
| 17 | 163 | 44 | 19 | 170 | -- | -- | 163 | -- | -- |
| 18 | 163 | -- | -- | 167 | 87 | 39 | 178 | 33 | 17 |
| 19 | 162 | 54 | 24 | 170 | 47 | 22 | 192 | 22 | 11 |
| 20 | 157 | 42 | 18 | 170 | 42 | 19 | 189 | 24 | 11 |
| 21 | 169 | 44 | 20 | 167 | 44 | 20 | 166 | 16 | 11 |
| 22 | 189 | -- | -- | 166 | 141 | 63 | 296 | 143 | 81 |
| 23 | 189 | 48 | 24 | 653 | -- | -- | 184 | 94 | 46 |
| 24 | 166 | 33 | 15 | 343 | 166 | 154 | 177 | 28 | 16 |
| 25 | 177 | -- | -- | 223 | 53 | 32 | 232 | 27 | 15 |
| 26 | 171 | 39 | 18 | 201 | 44 | 24 | 188 | -- | -- |
| 27 | 189 | 50 | 26 | 194 | 46 | 24 | 219 | 83 | 37 |
| 28 | 173 | 44 | 21 | 179 | -- | -- | 154 | 38 | 19 |
| 29 | 169 | -- | -- | 173 | 142 | 66 | 184 | 34 | 19 |
| 30 | 240 | 70 | 45 | 157 | 162 | 69 | 210 | 46 | 26 |
| 31 | 188 | 90 | 46 | 167 | -- | -- | -- | -- | -- |
| TOTAL | 5630 | -- | 509 | 6509 | -- | 1191 | 5389 | -- | 649 |

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 101275

## 05408000 KICKAPOO RIVER AT LA FARGE, WIS.--Continued

| DATE | TIME | TEMPERATURE (DEG C) | SUSPENDED SEDIMENT (MG/L) | SUS. SED. FALL DIAM. % FINER THAN .002 MM | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. SIEVE DIAM. % FINER THAN .062 MM | SUS. SED. SIEVE DIAM. % FINER THAN .125 MM | SUS. SED. SIEVE DIAM. % FINER THAN .500 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN. 18... | 1620 | 1.0 | 441 | 27 | 35 | 42 | 55 | 75 | 84 | 89 | 100 |
| APR. 16... | 0910 | -- | -- | 43 | 55 | 63 | 72 | 81 | 86 | 90 | 100 |
| AUG. 23... | 0740 | -- | -- | 52 | 66 | 78 | 89 | 94 | 96 | 98 | -- |

| DATE | TIME | BED MAT. SIEVE DIAM. % FINER THAN .062 MM | BED MAT. SIEVE DIAM. % FINER THAN .125 MM | BED MAT. SIEVE DIAM. % FINER THAN .250 MM | BED MAT. SIEVE DIAM. % FINER THAN .500 MM | BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM |
|---|---|---|---|---|---|---|---|---|---|
| OCT. 10... | 1500 | 5 | 10 | 30 | 52 | 58 | 58 | 58 | 60 |
| APR. 19... | 0900 | 8 | 23 | 69 | 96 | 96 | 97 | 98 | 100 |
| SEP. 08... | 1130 | 4 | 15 | 57 | 90 | 99 | 100 | 100 | 100 |

## 05430500 ROCK RIVER AT AFTON, WIS.

LOCATION.--Lat 42°36'33", long 89°04'14", in NE¼ sec.28, T.2 N., R.12 E., Rock County, temperature recorder at gaging station on right bank in Afton, 0.3 mi (0.48 km) downstream from highway bridge, and 1.1 mi (1.77 km) upstream from Bass Creek.
DRAINAGE AREA.--3,300 $mi^2$ (8,547 $km^2$), approximately.
PERIOD OF RECORD.--Water temperatures: September 1954 to September 1973.
EXTREMES, 1972-73.--Water temperatures: Maximum, 26.5°C on several days during July and August; minimum, freezing point on many days during January and February.
EXTREMES, 1954-73.--Water temperatures: Maximum, 32.0°C July 27-30, Aug. 4, 1955; July 26, 28, 1964; minimum, freezing point on many days during winter months 1954-68, 1971-73.

### TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 14.5 | 14.0 | 7.0 | 7.0 | 3.0 | 3.0 | 2.0 | 2.0 | 0.5 | 0.0 | 2.0 | 2.0 |
| 2 | 15.0 | 14.5 | 7.0 | 7.0 | 3.0 | 3.0 | 2.0 | 1.5 | 1.0 | 0.5 | 3.0 | 2.0 |
| 3 | 15.5 | 15.0 | 7.0 | 7.0 | 3.0 | 3.0 | 1.5 | 1.0 | 1.0 | 0.5 | 4.0 | 3.0 |
| 4 | 15.5 | 15.5 | 7.0 | 7.0 | 3.0 | 1.5 | 1.5 | 1.0 | 1.0 | 0.5 | 4.0 | 3.5 |
| 5 | 16.0 | 15.5 | 6.5 | 6.0 | 1.5 | 1.5 | 1.5 | 1.5 | 1.0 | 1.0 | 4.0 | 4.0 |
| 6 | 16.0 | 15.5 | 6.5 | 6.0 | 1.5 | 1.5 | 1.5 | 1.5 | 1.0 | 1.0 | 4.0 | 3.5 |
| 7 | 15.5 | 15.0 | 6.5 | 6.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.0 | 0.5 | 4.5 | 3.5 |
| 8 | 15.0 | 14.5 | 5.5 | 6.5 | 1.5 | 1.5 | 1.5 | 1.5 | 0.5 | 0.0 | 4.5 | 4.5 |
| 9 | 14.5 | 14.0 | 6.5 | 6.5 | 1.5 | 1.5 | 1.5 | 1.0 | 0.0 | 0.0 | 4.5 | 4.0 |
| 10 | 14.0 | 13.0 | 6.5 | 6.5 | 3.0 | 2.0 | 1.0 | 0.5 | 0.5 | 0.0 | 4.0 | 3.5 |
| 11 | 13.0 | 13.0 | 6.5 | 6.5 | 3.0 | 3.0 | 0.5 | 0.5 | 0.5 | 0.5 | 4.5 | 3.5 |
| 12 | 13.0 | 13.0 | 6.5 | 6.5 | 3.0 | 1.5 | 0.5 | 0.5 | 0.5 | 0.5 | 5.0 | 4.5 |
| 13 | 13.0 | 13.0 | 6.5 | 5.5 | 1.5 | 1.5 | 0.5 | 0.0 | 0.5 | 0.5 | 4.5 | 4.5 |
| 14 | 13.0 | 13.0 | 5.5 | 4.5 | 2.0 | 1.5 | 0.5 | 0.0 | 0.5 | 0.5 | 5.0 | 1.0 |
| 15 | 13.0 | 11.5 | 4.5 | 4.0 | 2.0 | 2.0 | 1.0 | 0.5 | 0.5 | 0.5 | 5.5 | 5.0 |
| 16 | 11.5 | 10.5 | 4.0 | 4.0 | 2.0 | 2.0 | 1.5 | 1.0 | 0.5 | 0.5 | 5.5 | 5.0 |
| 17 | 10.5 | 10.0 | 4.0 | 4.0 | 2.0 | 2.0 | 1.5 | 1.0 | 0.5 | 0.5 | 5.0 | 4.5 |
| 18 | 10.0 | 9.0 | 4.0 | 4.0 | 2.0 | 1.5 | 3.0 | 1.5 | 1.0 | 0.5 | 4.5 | 4.0 |
| 19 | 9.0 | 8.0 | 4.5 | 4.0 | 1.5 | 1.5 | 3.0 | 2.0 | 0.5 | 0.5 | 4.0 | 4.0 |
| 20 | 8.0 | 7.0 | 4.0 | 4.0 | 2.0 | 1.5 | 2.0 | 1.5 | 1.0 | 0.5 | 4.5 | 4.0 |
| 21 | 7.0 | 7.0 | 4.0 | 4.0 | 2.0 | 1.5 | 1.5 | 1.0 | 1.5 | 1.0 | 4.0 | 4.0 |
| 22 | 7.0 | 7.0 | 4.0 | 4.0 | 1.5 | 1.5 | 1.0 | 1.0 | 1.5 | 1.0 | 4.5 | 4.0 |
| 23 | 7.0 | 7.0 | 4.0 | 4.0 | 2.0 | 1.5 | 1.5 | 1.0 | 1.5 | 1.0 | 5.0 | 4.5 |
| 24 | 7.0 | 7.0 | 4.0 | 3.5 | 1.5 | 1.5 | 1.5 | 1.0 | 2.0 | 1.5 | 5.0 | 5.0 |
| 25 | 7.0 | 7.0 | 3.5 | 3.5 | 1.5 | 1.5 | 1.0 | 1.0 | 2.0 | 1.5 | 5.0 | 5.0 |
| 26 | 7.0 | 7.0 | 3.5 | 3.5 | 1.5 | 1.5 | 1.0 | 1.0 | 1.5 | 1.5 | 5.0 | 5.0 |
| 27 | 7.0 | 7.0 | 3.5 | 3.5 | 1.5 | 1.5 | 1.0 | 1.0 | 2.0 | 1.5 | 6.0 | 5.0 |
| 28 | 7.0 | 7.0 | 3.5 | 3.0 | 1.5 | 1.5 | 1.0 | 1.0 | 2.0 | 2.0 | 6.0 | 6.0 |
| 29 | 7.0 | 7.0 | 3.0 | 3.0 | 1.5 | 1.0 | 1.0 | 0.0 | --- | --- | 6.0 | 6.0 |
| 30 | 7.0 | 7.0 | 3.0 | 3.0 | 2.0 | 1.5 | 0.0 | 0.0 | --- | --- | 7.0 | 6.0 |
| 31 | 7.0 | 7.0 | --- | --- | 2.0 | 2.0 | 0.0 | 0.0 | --- | --- | 7.0 | 7.0 |
| MONTH | 15.0 | 7.0 | 7.0 | 3.0 | 3.0 | 1.0 | 3.0 | 0.0 | 2.0 | 0.0 | 7.0 | 1.0 |

## 05430500 ROCK RIVER AT AFTON, WIS.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 7.0 | 7.0 | 13.5 | 12.0 | 19.0 | 18.0 | 23.0 | 20.5 | 22.0 | 20.0 | 26.0 | 23.5 |
| 2 | 7.0 | 7.0 | 14.0 | 13.5 | 19.0 | 18.5 | 24.0 | 22.0 | 23.0 | 19.5 | 25.0 | 23.5 |
| 3 | 7.0 | 6.5 | 14.0 | 13.0 | 19.5 | 19.0 | 24.5 | 23.5 | 23.0 | 19.5 | 25.0 | 23.5 |
| 4 | 6.5 | 6.0 | 13.0 | 12.0 | 20.0 | 19.5 | 25.0 | 23.5 | 22.0 | 19.5 | 24.0 | 23.0 |
| 5 | 6.5 | 6.5 | 13.0 | 13.0 | 20.5 | 20.0 | 25.0 | 23.5 | 24.5 | 20.5 | 24.0 | 21.5 |
| 6 | 6.5 | 6.5 | 13.0 | 13.0 | 21.0 | 20.0 | 25.5 | 23.5 | 24.0 | 21.0 | 23.0 | 20.0 |
| 7 | 9.0 | 6.0 | 13.5 | 13.0 | 21.0 | 21.0 | 24.5 | 24.5 | 24.5 | 21.0 | 22.0 | 19.5 |
| 8 | 8.0 | 6.5 | 14.0 | 13.0 | 21.5 | 21.0 | 24.5 | 25.0 | 24.0 | 23.0 | 21.5 | 19.5 |
| 9 | 6.5 | 4.5 | 14.0 | 13.0 | 23.0 | 21.5 | 26.5 | 25.0 | 24.5 | 22.0 | 20.0 | 19.0 |
| 10 | 4.5 | 3.5 | 14.5 | 14.0 | 23.5 | 23.0 | 26.5 | 25.0 | 25.0 | 22.0 | 20.0 | 18.5 |
| 11 | 3.5 | 3.5 | 15.0 | 14.5 | 24.0 | 23.0 | 26.0 | 24.5 | 25.5 | 22.0 | 20.5 | 18.0 |
| 12 | 4.5 | 3.5 | 15.0 | 14.5 | 24.5 | 24.0 | 25.5 | 23.5 | 25.5 | 21.5 | 20.5 | 18.0 |
| 13 | 5.5 | 4.5 | 14.5 | 14.0 | 24.5 | 23.5 | 26.0 | 23.0 | 24.5 | 21.5 | 19.5 | 18.5 |
| 14 | 6.5 | 5.5 | 14.0 | 14.0 | 24.5 | 24.0 | 26.0 | 23.0 | 24.0 | 22.0 | 20.0 | 18.0 |
| 15 | 8.0 | 6.5 | 14.0 | 14.0 | 24.5 | 24.0 | 24.0 | 20.5 | 24.0 | 20.5 | 19.5 | 17.0 |
| 16 | 9.0 | 8.0 | 14.0 | 14.0 | 24.0 | 23.0 | 24.0 | 21.0 | 24.5 | 21.0 | 17.0 | 16.0 |
| 17 | 9.5 | 9.0 | 14.0 | 14.0 | 23.0 | 22.0 | 24.5 | 20.5 | 24.5 | 21.0 | 16.5 | 15.0 |
| 18 | 10.0 | 9.5 | 14.5 | 14.5 | 22.0 | 21.5 | 25.0 | 21.0 | 25.0 | 21.5 | 16.0 | 14.0 |
| 19 | 11.0 | 10.0 | 15.0 | 14.5 | 23.0 | 22.0 | 25.5 | 22.0 | 24.0 | 22.0 | 15.5 | 14.0 |
| 20 | 12.0 | 11.0 | 15.0 | 15.0 | 23.0 | 22.0 | 24.5 | 23.0 | 24.0 | 21.5 | 15.5 | 14.0 |
| 21 | 13.5 | 12.0 | 16.0 | 15.5 | 22.0 | 22.0 | 23.0 | 22.0 | 23.0 | 20.5 | 15.0 | 13.5 |
| 22 | 14.5 | 13.5 | 15.5 | 15.5 | 22.0 | 21.0 | 22.0 | 20.5 | 21.5 | 20.0 | 17.0 | 14.5 |
| 23 | 14.5 | 14.0 | 15.5 | 15.5 | 21.5 | 21.0 | 22.0 | 20.5 | 21.0 | 19.0 | 16.5 | 14.5 |
| 24 | 14.5 | 14.5 | 17.0 | 15.5 | 22.0 | 21.0 | 24.0 | 21.0 | 19.5 | 18.5 | 18.0 | 14.5 |
| 25 | 14.5 | 14.5 | 17.0 | 17.0 | 22.0 | 21.5 | 24.5 | 21.5 | 21.0 | 19.0 | 18.5 | 16.5 |
| 26 | 14.5 | 14.0 | 17.0 | 16.5 | 22.0 | 21.5 | 24.5 | 22.0 | 23.5 | 19.5 | 19.5 | 17.0 |
| 27 | 14.0 | 14.0 | 17.0 | 16.0 | 23.0 | 21.5 | 24.5 | 21.5 | 25.0 | 21.0 | 19.0 | 19.0 |
| 28 | 14.5 | 14.0 | 16.0 | 15.5 | 23.0 | 21.0 | 24.0 | 20.5 | 26.0 | 23.0 | 19.0 | 18.0 |
| 29 | 14.0 | 13.0 | 16.0 | 15.0 | 21.0 | 20.5 | 23.5 | 20.5 | 26.5 | 23.5 | 18.0 | 16.5 |
| 30 | 13.0 | 12.0 | 16.0 | 16.0 | 21.0 | 20.0 | 24.0 | 21.0 | 25.5 | 23.5 | 16.5 | 15.5 |
| 31 | --- | --- | 16.0 | 16.0 | --- | --- | 23.5 | 21.0 | 26.0 | 23.5 | --- | --- |
| MONTH | 14.5 | 3.5 | 15.0 | 12.0 | 24.5 | 18.0 | 26.5 | 20.5 | 26.5 | 18.5 | 26.0 | 13.5 |
| YEAR | 26.5 | 0.0 | | | | | | | | | | |

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

### CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL IRON (FE) (UG/L) | DISSOLVED IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **STREAMS TRIBUTARY TO LAKE MICHIGAN** | | | | | | | | | | | |
| 04073180 - MECAN RIVER NR. HANCOCK, WIS. (LAT 44 03 04 LONG 089 27 50) | | | | | | | | | | | |
| DEC., 1972 | | | | | | | | | | | |
| 15... | 1100 | 1.5 | -- | 8.0 | 20 | -- | 22 | -- | 43 | 20 | 1.6 |
| JUNE, 1973 | | | | | | | | | | | |
| 28... | 1300 | 18.5 | -- | 14 | -- | 20 | -- | 10 | 42 | 22 | 1.6 |

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) | SODIUM ADSORPTION RATIO |
|---|---|---|---|---|---|---|---|---|---|---|
| **CHIPPEWA RIVER BASIN** | | | | | | | | | | |
| 05368000 - HAY RIVER AT WHEELER, WIS. (LAT 45 02 52 LONG 091 54 39) | | | | | | | | | | |
| OCT., 1972 | | | | | | | | | | |
| 26... | -- | 9.0 | -- | 6.7 | 40 | 38 | 38 | 18 | 5.2 | [illegible] |
| AUG., 1973 | | | | | | | | | | |
| 13... | 1235 | 18.5 | 220 | -- | -- | -- | -- | -- | -- | -- |

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | TOTAL AMMONIA NITROGEN IN BOTTOM DEP. (MG/KG) | TOTAL NITRITE PLUS NITRATE IN BOT. DEP. (MG/KG) | TOTAL PHOSPHORUS IN BOTTOM DEPOSITS (MG/KG) | INORGANIC CARBON IN BED MATERIAL (G/KG) | ORGANIC CARBON IN BED MATERIAL (C) (G/KG) | TOTAL ARSENIC IN BOTTOM DEPOSITS (UG/G) | TOTAL BARIUM IN BOTTOM DEPOSITS (UG/G) | TOTAL BERYLLIUM IN BOTTOM DEPOSITS (UG/G) | TOTAL CADMIUM IN BOTTOM DEPOSITS (UG/G) | TOTAL CHROMIUM IN BOTTOM DEPOSITS (UG/G) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AUG. | | | | | | | | | | | | |
| 29... | 1300 | 237 | .6 | .5 | 17 | .9 | .6 | 0 | 0 | 0 | 0 | 0 |

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL IRON (FE) (UG/L) | DISSOLVED IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **ROCK RIVER BASIN** | | | | | | | | | | | |
| 05425978 - ROCK CREEK NR. LAKE MILLS, WIS. (LAT 43 03 17 LONG 088 55 35) | | | | | | | | | | | |
| APR., 1973 | | | | | | | | | | | |
| 19... | 1130 | 13.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05426410 - SCUPPERNONG AT PALMYRA, WIS. (LAT 42 52 42 LONG 088 34 55) | | | | | | | | | | | |
| APR., 1973 | | | | | | | | | | | |
| 19... | 1400 | 15.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05426435 - SPRING CREEK NR. PALMYRA, WIS. (LAT 42 51 29 LONG 088 36 34) | | | | | | | | | | | |
| APR., 1973 | | | | | | | | | | | |
| 19... | 1430 | - | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05427490 - TRIBUTARY TO LAKE RIPLEY NR. CAMBRIDGE, WIS. (LAT 43 00 02 LONG 088 58 17) | | | | | | | | | | | |
| APR., 1973 | | | | | | | | | | | |
| 19... | 1015 | 14.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 05427582 - KOSHKONONG CREEK TRIB. AT CAMBRIDGE, WIS. (LAT 43 00 27 LONG 089 00 05) | | | | | | | | | | | |
| APR., 1973 | | | | | | | | | | | |
| 19... | 0945 | 11.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | SODIUM AD-SORP-TION RATIO | PERCENT SODIUM | DIS-SOLVED PO-TAS-SIUM (K) (MG/L) | BICAR-BONATE (HCO3) (MG/L) | CAR-BONATE (CO3) (MG/L) | DIS-SOLVED SULFATE (SO4) (MG/L) | DIS-SOLVED CHLO-RIDE (CL) (MG/L) | DIS-SOLVED FLUO-RIDE (F) (MG/L) | DIS-SOLVED NITRATE (N) (MG/L) | TOTAL NITRATE (NO3) (MG/L) | DIS_ SOLVED NITRATE (NO3) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued** | | | | | | | | | | | |
| 04073180 - MECAN RIVER NR. HANCOCK, WIS. (LAT 44 03 04 LONG 089 27 50) | | | | | | | | | | | |
| DEC., 1972 15... | .1 | 2 | .7 | 216 | 0 | 7.0 | 2.5 | .0 | 1.5 | -- | 6.6 |
| JUNE, 1973 28... | .0 | 2 | .4 | 216 | 0 | 7.0 | 3.4 | .1 | 1.2 | 5.2 | 5.3 |

| DATE | PERCENT SODIUM | DIS-SOLVED PO-TAS-SIUM (K) (MG/L) | BICAR-BONATE (HCO3) (MG/L) | CAR-BONATE (CO3) (MG/L) | DIS-SOLVED SULFATE (SO4) (MG/L) | DIS-SOLVED CHLO-RIDE (CL) (MG/L) | DIS-SOLVED FLUO-RIDE (F) (MG/L) | DIS-SOLVED NITRATE (N) (MG/L) | DIS_ SOLVED NITRATE (NO3) (MG/L) | DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| **CHIPPEWA RIVER BASIN--Continued** | | | | | | | | | | |
| 05368000 - HAY RIVER AT WHEELER, WIS. (LAT 45 02 52 LONG 091 54 39) | | | | | | | | | | |
| OCT., 1972 26... | 6 | 2.5 | 190 | 0 | 11 | 7.5 | .1 | 1.2 | 5.2 | 184 |
| AUG., 1973 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | TOTAL COBALT IN BOTTOM DE-POSITS (UG/G) | TOTAL COPPER IN BOTTOM DE-POSITS (UG/G) | TOTAL LEAD IN BOTTOM DE-POSITS (UG/G) | TOTAL MANGA-NESE IN BOTTOM DE-POSITS (UG/G) | TOTAL MOLYB-DENUM IN BOT-TOM DE-POSITS (UG/G) | TOTAL NICKEL IN BOTTOM DE-POSITS (UG/G) | TOTAL SILVER IN BOTTOM DE-POSITS (UG/G) | TOTAL STRON-TIUM IN BOTTOM DE-POSITS (UG/G) | TOTAL VANA-DIUM IN BOTTOM DE-POSITS (UG/G) | TOTAL ZINC IN BOTTOM DE-POSITS (UG/G) | TOTAL ALUMI-NUM IN BOTTOM DE-POSITS (UG/G) | TOTAL SELE-NIUM IN BOTTOM DE-POSITS (UG/G) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AUG. 29... | 0 | 2 | <5 | 340 | <5 | <2 | 0 | 0 | 620 | 3 | 380 | 3 |

| DATE | SODIUM AD-SORP-TION RATIO | PERCENT SODIUM | DIS-SOLVED PO-TAS-SIUM (K) (MG/L) | BICAR-BONATE (HCO3) (MG/L) | CAR-BONATE (CO3) (MG/L) | DIS-SOLVED SULFATE (SO4) (MG/L) | DIS-SOLVED CHLO-RIDE (CL) (MG/L) | DIS-SOLVED FLUO-RIDE (F) (MG/L) | DIS-SOLVED NITRATE (N) (MG/L) | TOTAL NITRATE (NO3) (MG/L) | DIS_ SOLVED NITRATE (NO3) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **ROCK RIVER BASIN--Continued** | | | | | | | | | | | |
| 05425970 - ROCK CREEK NR. LAKE HILLS, WIS. (LAT 43 03 17 LONG 088 55 35) | | | | | | | | | | | |
| APR., 1973 19... | -- | -- | -- | 274 | 0 | 42 | 14 | .4 | .40 | -- | 1.6 |
| 05426410 - SCUPPERNONG AT PALMYRA, WIS. (LAT 42 52 42 LONG 088 34 55) | | | | | | | | | | | |
| APR., 1973 19... | -- | -- | -- | 270 | 0 | 42 | 10 | .3 | .80 | -- | 3.4 |
| 05426435 - SPRING CREEK NR. PALMYRA, WIS. (LAT 42 51 29 LONG 088 36 34) | | | | | | | | | | | |
| APR., 1973 19... | -- | -- | -- | 252 | 0 | 20 | 8.0 | .4 | .60 | -- | 2.8 |
| 05427490 - TRIBUTARY TO LAKE RIPLEY NR. CAMBRIDGE, WIS. (LAT 43 00 02 LONG 088 58 17) | | | | | | | | | | | |
| APR., 1973 19... | -- | -- | -- | 256 | 0 | 51 | 20 | .4 | 3.6 | -- | 16 |
| 05427562 - KOSHKONONG CREEK TRIB. AT CAMBRIDGE, WIS. (LAT 43 00 27 LONG 089 00 05) | | | | | | | | | | | |
| APR., 1973 19... | -- | -- | -- | 238 | 0 | 330 | 18 | .2 | .80 | -- | 2.7 |

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

### STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued

04073180 - MECAN RIVER NR. MANCOCK, WIS. (LAT 44 03 04 LONG 089 27 58)

| DATE | DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) | DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) | DIS-SOLVED SOLIDS (TONS PER AC-FT) | HARD-NESS (CA,MG) (MG/L) | NON-CAR-BONATE HARD-NESS (MG/L) | ALKA-LINITY AS CACO3 (MG/L) | CARBON DIOXIDE (CO2) (MG/L) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH (UNITS) | COLOR (PLAT-INUM-COBALT UNITS) |
|---|---|---|---|---|---|---|---|---|---|---|
| DEC., 1972 15... | 206 | 194 | .28 | 190 | 10 | 179 | 5.5 | 356 | 7.8 | 5 |
| JUNE, 1973 28... | 208 | 202 | .28 | 200 | 18 | 177 | 4.4 | 340 | 7.9 | 5 |

### CHIPPEWA RIVER BASIN--Continued

05368000 - MAY RIVER AT WHEELER, WIS. (LAT 45 02 52 LONG 091 54 39)

| DATE | DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) | DIS-SOLVED SOLIDS (TONS PER AC-FT) | HARD-NESS (CA,MG) (MG/L) | NON-CAR-BONATE HARD-NESS (MG/L) | ALKA-LINITY AS CACO3 (MG/L) | CARBON DIOXIDE (CO2) (MG/L) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH (UNITS) | COLOR (PLAT-INUM-COBALT UNITS) |
|---|---|---|---|---|---|---|---|---|---|
| OCT., 1972 26... | 187 | .25 | 170 | 13 | 156 | 12 | 330 | 7.4 | 10 |
| AUG., 1973 13... | -- | -- | -- | -- | -- | -- | 340 | -- | -- |

| DATE | TOTAL IRON IN BOTTOM DE-POSITS (UG/G) | TOTAL MERCURY IN BOTTOM DE-POSITS (UG/G) | ALDRIN (UG/L) | LINDANE IN BOTTOM DE-POSITS (UG/KG) | CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG) | DDD IN BOTTOM DE-POSITS (UG/KG) | DDE IN BOTTOM DE-POSITS (UG/KG) | DDT IN BOTTOM DE-POSITS (UG/KG) | DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG) | ENDRIN IN BOTTOM DE-POSITS (UG/KG) | ETHION IN BOTTOM DE-POSITS (UG/KG) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AUG. 29... | 3400 | .0 | .00 | .0 | 0 | .0 | .0 | .0 | .0 | .0 | .0 |

| DATE | TOX-APHENE IN BOTTOM DE-POSITS (UG/KG) | HEPTA-CHLOR IN BOTTOM DE-POSITS (UG/KG) | MALA-THION IN BOTTOM DE-POSITS (UG/KG) | PARA-THION IN BOTTOM DE-POSITS (UG/KG) | DI-AZINON IN BOTTOM DE-POSITS (UG/KG) | METHYL PARA-THION IN BOT-TOM DE-POSITS (UG/KG) | 2,4-D IN BOTTOM DE-POSITS (UG/KG) | 2,4,5-T IN BOTTOM DE-POSITS (UG/KG) | SILVEX IN BOTTOM DE-POSITS (UG/KG) | TRI-THION IN BOTTOM DE-POSITS (UG/KG) | METHYL TRI-THION IN BOT-TOM DE-POSITS (UG/KG) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AUG. 29... | 0 | .0 | .0 | .0 | .0 | .0 | 0 | 0 | 0 | .0 | .0 |

### ROCK RIVER BASIN--Continued

05425970 - ROCK CREEK NR. LAKE MILLS, WIS. (LAT 43 03 17 LONG 088 55 35)

| DATE | DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) | DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) | DIS-SOLVED SOLIDS (TONS PER AC-FT) | HARD-NESS (CA,MG) (MG/L) | NON-CAR-BONATE HARD-NESS (MG/L) | ALKA-LINITY AS CACO3 (MG/L) | CARBON DIOXIDE (CO2) (MG/L) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH (UNITS) | COLOR (PLAT-INUM-COBALT UNITS) |
|---|---|---|---|---|---|---|---|---|---|---|
| APR., 1973 19... | 308 | -- | .42 | 280 | 55 | 225 | 11 | 497 | 7.6 | -- |

05426410 - SCUPPERNONG AT PALMYRA, WIS. (LAT 42 52 42 LONG 088 34 55)

| DATE | DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) | DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) | DIS-SOLVED SOLIDS (TONS PER AC-FT) | HARD-NESS (CA,MG) (MG/L) | NON-CAR-BONATE HARD-NESS (MG/L) | ALKA-LINITY AS CACO3 (MG/L) | CARBON DIOXIDE (CO2) (MG/L) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH (UNITS) | COLOR (PLAT-INUM-COBALT UNITS) |
|---|---|---|---|---|---|---|---|---|---|---|
| APR., 1973 19... | 332 | -- | .45 | 280 | 58 | 221 | 11 | 501 | 7.6 | -- |

05426435 - SPRING CREEK NR. PALMYRA, WIS. (LAT 42 51 29 LONG 088 36 34)

| DATE | DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) | DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) | DIS-SOLVED SOLIDS (TONS PER AC-FT) | HARD-NESS (CA,MG) (MG/L) | NON-CAR-BONATE HARD-NESS (MG/L) | ALKA-LINITY AS CACO3 (MG/L) | CARBON DIOXIDE (CO2) (MG/L) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH (UNITS) | COLOR (PLAT-INUM-COBALT UNITS) |
|---|---|---|---|---|---|---|---|---|---|---|
| APR., 1973 19... | 252 | -- | .34 | 240 | 34 | 207 | 5.1 | 433 | 7.9 | -- |

05427490 - TRIBUTARY TO LAKE RIPLEY NR. CAMBRIDGE, WIS. (LAT 43 00 02 LONG 088 58 17)

| DATE | DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) | DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) | DIS-SOLVED SOLIDS (TONS PER AC-FT) | HARD-NESS (CA,MG) (MG/L) | NON-CAR-BONATE HARD-NESS (MG/L) | ALKA-LINITY AS CACO3 (MG/L) | CARBON DIOXIDE (CO2) (MG/L) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH (UNITS) | COLOR (PLAT-INUM-COBALT UNITS) |
|---|---|---|---|---|---|---|---|---|---|---|
| APR., 1973 19... | 336 | -- | .46 | 300 | 90 | 210 | 21 | 529 | 7.3 | -- |

05427502 - KOSHKONONG CREEK TRIB. AT CAMBRIDGE, WIS. (LAT 43 00 27 LONG 089 00 05)

| DATE | DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) | DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) | DIS-SOLVED SOLIDS (TONS PER AC-FT) | HARD-NESS (CA,MG) (MG/L) | NON-CAR-BONATE HARD-NESS (MG/L) | ALKA-LINITY AS CACO3 (MG/L) | CARBON DIOXIDE (CO2) (MG/L) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH (UNITS) | COLOR (PLAT-INUM-COBALT UNITS) |
|---|---|---|---|---|---|---|---|---|---|---|
| APR., 1973 19... | 2 | -- | .00 | 260 | 64 | 195 | 4.8 | 447 | 7.9 | -- |

## MISCELLANEOUS ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

The following table contains a series of periodic specific conductance measurements obtained as part of water-resources investigations at stream gaging stations in Wisconsin. The purpose of these measurements is to determine the range in specific conductance under various streamflow conditions.

Specific Conductance (Micromhos/cm at 25°C), October 1972 to September 1973

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| **STREAMS TRIBUTARY TO LAKE SUPERIOR** | | | | | | | | | |
| **04025500 BOIS BRULE RIVER AT BRULE, WIS (LAT 46 32 16 LONG 091 35 43)** | | | | | | | | | |
| Nov. 2, 1972 | 1215 | 5.5 | 253 | 105 | May 10, 1973 | 0930 | 9.0 | 259 | 70 |
| Dec. 28, 1972 | 1135 | 0.5 | 145 | 140 | July 5, 1973 | 1035 | 17.0 | 144 | 120 |
| Jan. 31, 1973 | 1030 | 0.0 | 152 | 110 | Aug. 7, 1973 | 1145 | 18.0 | 234 | 120 |
| Mar. 20, 1973 | 1310 | 2.5 | 300 | 100 | Sept.18, 1973 | 0930 | 9.0 | 150 | 120 |
| **04027000 BAD RIVER NEAR ODANAH, WIS (LAT 46 29 15 LONG 090 41 45)** | | | | | | | | | |
| Nov. 9, 1972 | 1330 | 3.0 | 1,830 | 110 | May 8, 1973 | 1720 | 15.0 | 1,620 | 90 |
| Dec. 27, 1972 | 1250 | 0.0 | 232 | 150 | July 5, 1973 | 1630 | 26.5 | 218 | 110 |
| Jan. 11, 1973 | 1240 | 0.0 | 200 | 130 | Aug. 8, 1973 | 1300 | 19.5 | 1,650 | 120 |
| Jan. 30, 1973 | 1350 | 0.0 | 294 | 90 | Aug. 21, 1973 | 1410 | 20.0 | 336 | 100 |
| Apr. 5, 1973 | 1305 | 3.5 | 1,470 | 100 | Sept.19, 1973 | 1000 | 9.5 | 154 | 100 |
| **04027500 WHITE RIVER NEAR ASHLAND, WIS (LAT 46 29 50 LONG 090 54 15)** | | | | | | | | | |
| Nov. 2, 1972 | 0815 | 5.5 | 269 | 170 | May 9, 1973 | 1310 | 9.0 | 352 | 160 |
| Dec. 27, 1972 | 1440 | 0.0 | 146 | 180 | July 4, 1973 | 0830 | 20.0 | 182 | 170 |
| Jan. 30, 1973 | 1515 | 0.5 | 129 | 160 | Aug. 16, 1973 | 1030 | 18.0 | 482 | 120 |
| Mar. 21, 1973 | 0810 | 1.5 | 512 | 170 | Sept.18, 1973 | 1150 | 11.0 | 231 | 150 |
| **STREAMS TRIBUTARY TO LAKE MICHIGAN** | | | | | | | | | |
| **04064500 PINE RIVER BELOW PINE RIVER POWERPLANT NEAR FLORENCE, WIS (LAT 45 50 16 LONG 088 13 31)** | | | | | | | | | |
| Oct. 16, 1972 | 1545 | 7.0 | 448 | 160 | Apr. 25, 1973 | 0945 | 4.5 | 1,420 | 85 |
| Nov. 2, 1972 | 1510 | 3.5 | 625 | 150 | June 14, 1973 | 0955 | 10.5 | 179 | 180 |
| Jan. 9, 1973 | 1100 | 0.0 | 382 | 150 | July 18, 1973 | 1105 | 22.0 | 310 | 140 |
| Feb. 6, 1973 | 1150 | 0.0 | 330 | 295 | Aug. 23, 1973 | 1605 | - | 686 | - |
| Mar. 23, 1973 | 1115 | 0.5 | 1,380 | 75 | | | | | |
| **04066000 MENOMINEE RIVER NEAR PEMBINE, WIS (LAT 45 35 24 LONG 087 46 34)** | | | | | | | | | |
| Oct. 16, 1972 | 1710 | 8.0 | 2,920 | 180 | May 30, 1973 | 1830 | - | 4,770 | - |
| Nov. 3, 1972 | 1200 | 4.5 | 5,370 | 210 | July 17, 1973 | 1130 | 21.5 | 2,110 | 260 |
| Mar. 22, 1973 | 1050 | 3.0 | 6,700 | 150 | Aug. 24, 1973 | 1330 | 19.5 | 2,640 | 230 |
| Apr. 20, 1973 | 0900 | 5.0 | 11,000 | - | | | | | |
| **04069500 PESHTIGO RIVER AT PESHTIGO, WIS (LAT 45 02 49 LONG 087 44 40)** | | | | | | | | | |
| Oct. 16, 1972 | 1300 | 12.0 | 613 | 210 | Apr. 17, 1973 | 1210 | - | 3,880 | - |
| Dec. 6, 1972 | 0920 | 0.0 | 559 | - | June 18, 1973 | 1350 | - | 1,640 | - |
| Jan. 10, 1973 | 1045 | 1.0 | 395 | 100 | July 31, 1973 | 1220 | 22.5 | 821 | 280 |
| Feb. 7, 1973 | 1050 | 1.0 | 436 | 200 | Sept.13, 1973 | 1340 | 19.5 | 651 | 280 |
| Mar. 14, 1973 | 1720 | - | 4,810 | - | | | | | |
| **04071000 OCONTO RIVER NEAR GILLETT, WIS (LAT 44 51 53 LONG 088 18 00)** | | | | | | | | | |
| Oct. 25, 1972 | 1210 | 5.0 | 768 | 200 | Mar. 28, 1973 | 1400 | - | 1,220 | - |
| Nov. 29, 1972 | 1310 | 0.0 | 543 | 220 | Apr. 27, 1973 | 1300 | 8.5 | 1,420 | 200 |
| Dec. 28, 1972 | 1245 | 0.0 | 497 | 280 | May 29, 1973 | 1510 | 10.0 | 3,330 | 280 |
| Jan. 26, 1973 | 1150 | 0.0 | 672 | 300 | June 29, 1973 | 1355 | 17.5 | 771 | - |
| Feb. 26, 1973 | 1320 | 0.0 | 427 | 360 | July 31, 1973 | 1700 | 19.5 | 492 | 300 |
| Mar. 8, 1973 | 1735 | - | 1,850 | - | Aug. 28, 1973 | 1600 | 23.0 | 490 | 240 |
| Mar. 13, 1973 | 1010 | 2.0 | 3,390 | - | Sept.27, 1973 | 1325 | 17.0 | 566 | 260 |

MISCELLANEOUS ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued

04071858 PENSAUKEE RIVER NEAR PENSAUKEE, WIS (LAT 44 49 07 LONG 087 57 11)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Nov. 14, 1972 | 1600 | 3.0 | 62 | 560 | Mar. 13, 1973 | 1330 | 1.0 | 945 | - |
| Dec. 5, 1972 | 1530 | 0.0 | 19 | 650 | Mar. 15, 1973 | 1120 | 4.0 | 1,290 | - |
| Jan. 10, 1973 | 1315 | 0.0 | 50 | 650 | Apr. 17, 1973 | 1510 | - | 1,340 | - |
| Feb. 6, 1973 | 1645 | 0.0 | 115 | 570 | May 29, 1973 | 1150 | - | 3,750 | - |
| Mar. 8, 1973 | 1245 | 0.5 | 2,770 | - | July 31, 1973 | 1500 | - | 9.5 | 320 |
| Mar. 8, 1973 | 1615 | 0.5 | 2,400 | - | Sept.13, 1973 | 1435 | 17.0 | 5.7 | 450 |
| Mar. 9, 1973 | 1000 | 0.5 | 1,210 | 200 | | | | | |

04072750 LAWRENCE CREEK NEAR WESTFIELD, WIS (LAT 43 53 52 LONG 089 34 43)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 13, 1972 | 1030 | 8.0 | 17 | 340 | Mar. 7, 1973 | 1745 | 6.0 | 27 | 280 |
| Nov. 16, 1972 | 1000 | 4.0 | 16 | 320 | May 31, 1973 | 1415 | 17.5 | 21 | 340 |
| Jan. 8, 1973 | 1300 | 2.0 | 19 | 310 | July 11, 1973 | 1315 | 15.0 | 19 | 325 |
| Feb. 20, 1973 | 1315 | 8.0 | 18 | 300 | Sept. 6, 1973 | 1045 | 11.5 | 21 | - |

04073050 GRAND RIVER NEAR KINGSTON, WIS (LAT 43 41 09 LONG 089 05 09)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 19, 1972 | 1245 | 4.5 | 51 | 750 | Mar. 13, 1973 | 1000 | 4.6 | 259 | 520 |
| Dec. 1, 1972 | 1100 | 0.0 | 54 | 800 | Apr. 6, 1973 | 1045 | 7.5 | 134 | 655 |
| Jan. 19, 1973 | 1230 | 0.0 | 353 | 340 | May 17, 1973 | 1345 | 12.5 | 116 | 675 |
| Mar. 1, 1973 | 1445 | - | 50 | 725 | July 10, 1973 | 1030 | 22.0 | 46 | 680 |
| Mar. 7, 1973 | 1515 | 6.0 | 1,110 | 200 | Aug. 28, 1973 | 1045 | 24.0 | 32 | 750 |
| Mar. 9, 1973 | 1030 | 1.0 | 569 | 270 | | | | | |

04073500 FOX RIVER AT BERLIN, WIS (LAT 43 57 14 LONG 088 57 08)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Dec. 1, 1972 | 1200 | 0.0 | 1,300 | - | May 9, 1973 | 1230 | 12.5 | 4,440 | 290 |
| Mar. 9, 1973 | 1400 | 1.0 | 5,350 | 150 | June 19, 1973 | 1100 | 23.0 | 2,240 | 395 |
| Mar. 12, 1973 | 1100 | 1.5 | 5,440 | 120 | July 27, 1973 | 1115 | 21.0 | 651 | 380 |
| Mar. 19, 1973 | 1430 | 2.0 | 5,630 | 200 | Sept. 6, 1973 | 1130 | 22.0 | 745 | 380 |
| Apr. 26, 1973 | 1415 | 14.5 | 3,830 | 320 | | | | | |

04074950 WOLF RIVER AT LANGLADE, WIS (LAT 45 11 24 LONG 088 44 00)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 2, 1972 | 1430 | 9.5 | 1,140 | 200 | Mar. 15, 1973 | 1600 | 0.5 | 2,170 | 80 |
| Nov. 7, 1972 | 1400 | 5.5 | 707 | 150 | Apr. 11, 1973 | 1410 | 3.0 | 874 | - |
| Dec. 14, 1972 | 1300 | 0.0 | 358 | 210 | May 18, 1973 | 1200 | 9.5 | 1,100 | 200 |
| Jan. 22, 1973 | 1200 | 0.0 | 422 | 240 | July 6, 1973 | 1540 | 23.0 | 361 | 210 |
| Feb. 20, 1973 | 1210 | 0.0 | 332 | 180 | Aug. 9, 1973 | 1335 | 19.5 | 313 | 260 |
| Mar. 13, 1973 | 1100 | 0.5 | 1,910 | 100 | Sept.27, 1973 | 1100 | 15.0 | 424 | 220 |

04075200 EVERGREEN CREEK NEAR LANGLADE, WIS (LAT 45 10 11 LONG 088 48 12)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 2, 1972 | 1150 | 8.0 | 12 | 300 | Apr. 11, 1973 | 1135 | 6.0 | 13 | - |
| Nov. 7, 1972 | 1450 | 6.5 | 13 | 320 | May 18, 1973 | 1345 | - | 13 | - |
| Dec. 14, 1972 | 1105 | 0.0 | 12 | 320 | July 6, 1973 | 1435 | 16.0 | 16 | 310 |
| Jan. 22, 1973 | 1120 | 1.5 | 12 | 400 | Aug. 9, 1973 | 1200 | 14.0 | 17 | 340 |
| Feb. 20, 1973 | 1335 | 2.0 | 14 | 360 | Sept.27, 1973 | 0955 | 11.0 | 20 | 300 |
| Mar. 13, 1973 | 1742 | 3.0 | 22 | 180 | | | | | |

04077000 WOLF RIVER AT KESHENA FALLS, WIS (LAT 44 53 28 LONG 088 39 18)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 3, 1972 | 1215 | 10.0 | 1,560 | 160 | Mar. 16, 1973 | 1415 | 0.0 | 4,100 | 100 |
| Nov. 9, 1972 | 1145 | 3.5 | 1,130 | 200 | May 9, 1973 | 1145 | 5.5 | 2,880 | - |
| Dec. 28, 1972 | 1500 | 0.0 | 1,080 | 240 | July 10, 1973 | 1235 | 22.5 | 742 | 270 |
| Jan. 26, 1973 | 1425 | 0.0 | 688 | 220 | Aug. 28, 1973 | 1355 | 21.5 | 742 | 220 |
| Feb. 26, 1973 | 1525 | 0.0 | 640 | 280 | | | | | |

04078500 EMBARRASS RIVER NEAR EMBARRASS, WIS (LAT 44 43 29 LONG 088 44 10)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 3, 1972 | 1430 | 9.5 | 696 | 300 | Mar. 12, 1973 | 1810 | 1.5 | 3,600 | 140 |
| Nov. 9, 1972 | 1345 | 4.0 | 441 | 280 | Apr. 27, 1973 | 1135 | 8.0 | 653 | 210 |
| Dec. 15, 1972 | 1450 | 0.0 | 211 | 340 | June 18, 1973 | 1350 | 19.5 | 488 | 380 |
| Jan. 17, 1973 | 1150 | 0.0 | 259 | 360 | Aug. 1, 1973 | 0955 | 18.5 | 174 | 440 |
| Feb. 27, 1973 | 0935 | 0.0 | 203 | 400 | Sept.13, 1973 | 1200 | 17.0 | 146 | 420 |
| Mar. 8, 1973 | 1540 | 2.0 | 3,870 | 140 | | | | | |

MISCELLANEOUS ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued

04079000 WOLF RIVER AT NEW LONDON, WIS (LAT 44 23 32 LONG 088 44 25)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 3, 1972 | 1340 | 12.0 | 3,800 | 300 | Mar. 13, 1973 | 1525 | 1.5 | 13,500 | 170 |
| Nov. 15, 1972 | 1205 | 3.0 | 2,800 | 280 | Mar. 21, 1973 | 1350 | 4.0 | 10,400 | 350 |
| Jan. 17, 1973 | 1450 | 0.0 | 1,410 | 290 | May 9, 1973 | 1430 | 5.5 | 8,760 | 400 |
| Feb. 27, 1973 | 1220 | 0.0 | 1,200 | 420 | July 10, 1973 | 1600 | 25.0 | 1,330 | 440 |
| Mar. 12, 1973 | 1400 | 4.0 | 12,240 | 160 | Aug. 29, 1973 | 1230 | 25.0 | 1,240 | 400 |

04080950 EMMONS CREEK NEAR RURAL, WIS (LAT 44 18 55 LONG 089 11 34)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 17, 1972 | 1145 | 4.5 | 26 | 380 | Apr. 24, 1973 | 1100 | 8.5 | 32 | 360 |
| Nov. 14, 1972 | 1245 | 3.9 | 25 | 380 | May 8, 1973 | 1230 | 10.0 | 48 | 305 |
| Dec. 19, 1972 | 1500 | 3.9 | 25 | 380 | June 26, 1973 | 1330 | 14.0 | 33 | 360 |
| Jan. 23, 1973 | 1345 | 4.0 | 26 | 360 | July 17, 1973 | 1500 | 12.5 | 29 | 360 |
| Mar. 8, 1973 | 1030 | 2.5 | 57 | 270 | Aug. 14, 1973 | | 13.0 | 29 | 360 |

04085200 KEWAUNEE RIVER NEAR KEWAUNEE, WIS (LAT 44 27 30 LONG 087 33 23)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 16, 1972 | 1415 | 8.5 | 40 | 650 | Apr. 23, 1973 | 1215 | 12.5 | 238 | 520 |
| Nov. 13, 1972 | 1500 | 3.0 | 59 | 690 | May 21, 1973 | 1345 | 16.0 | 83 | 590 |
| Jan. 23, 1973 | 1445 | 0.0 | 834 | 720 | June 25, 1973 | 1415 | 17.5 | 82 | 600 |
| Feb. 19, 1973 | 1345 | 0.0 | 26 | 700 | Sept. 24, 1973 | 1414 | 15.5 | 50 | - |
| Mar. 26, 1973 | 1300 | 7.5 | 99 | 600 | Sept. 25, 1973 | 1745 | 15.5 | 44 | - |

04086000 SHEBOYGAN RIVER AT SHEBOYGAN, WIS (LAT 43 44 25 LONG 087 45 37)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 18, 1972 | 0915 | 5.5 | 109 | 710 | Mar. 27, 1973 | 1545 | 8.5 | 458 | 540 |
| Nov. 29, 1972 | 0900 | 0.0 | 90 | 295 | May 16, 1973 | 1015 | 14.0 | 465 | 570 |
| Jan. 17, 1973 | 1015 | 0.5 | 140 | 810 | July 12, 1973 | 1015 | 20.5 | 72 | 260 |
| Feb. 28, 1973 | 0915 | 0.0 | 154 | 1,000 | Aug. 23, 1973 | 0900 | 19.5 | 65 | 580 |
| Mar. 16, 1973 | 1230 | - | 1,860 | 400 | | | | | |

04086150 MILWAUKEE RIVER AT KEWASKUM, WIS (LAT 43 31 02 LONG 088 13 24)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 17, 1972 | 1045 | 5.0 | 95 | 740 | Mar. 26, 1973 | 1445 | 7.5 | 173 | 595 |
| Nov. 28, 1972 | 0830 | 0.0 | 65 | 37 | May 15, 1973 | 1400 | 11.0 | 282 | 560 |
| Jan. 16, 1973 | 1030 | 0.0 | 33 | 720 | July 12, 1973 | 1130 | 23.0 | 40 | 400 |
| Feb. 27, 1973 | 1015 | 0.0 | 63 | 745 | Aug. 21, 1973 | 1500 | 22.5 | 21 | 695 |

04086200 EAST BRANCH MILWAUKEE RIVER NEAR NEW FANE, WIS (LAT 43 33 01 LONG 088 11 18)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 17, 1972 | 1045 | 6.5 | 26 | 480 | May 15, 1973 | 1145 | 12.5 | 86 | 435 |
| Nov. 28, 1972 | 1045 | 0.0 | 26 | 335 | July 12, 1973 | 1245 | 21.5 | 13 | 490 |
| Jan. 16, 1973 | 1230 | 0.5 | 21 | 530 | Aug. 21, 1973 | 1015 | 18.5 | 14 | 475 |
| Feb. 27, 1973 | 1145 | 0.0 | 29 | 505 | Oct. 2, 1973 | 1145 | 16.0 | 22 | 500 |
| Mar. 26, 1973 | 1545 | 8.5 | 66 | 460 | | | | | |

04086340 NORTH BRANCH MILWAUKEE RIVER NEAR FILLMORE, WIS (LAT 43 28 58 LONG 088 03 39)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 17, 1972 | 1345 | 7.0 | 52 | 700 | Apr. 5, 1973 | 1030 | 5.0 | 242 | 575 |
| Nov. 28, 1972 | 1315 | 0.0 | 78 | 720 | May 31, 1973 | 1600 | 18.0 | 504 | 430 |
| Jan. 16, 1973 | 1515 | 0.0 | 42 | 705 | July 5, 1973 | 1715 | 25.5 | 46 | 650 |
| Feb. 27, 1973 | 1415 | 0.0 | 64 | 670 | Aug. 22, 1973 | 1215 | 19.0 | 38 | 605 |

04086360 MILWAUKEE RIVER AT WAUBEKA, WIS (LAT 43 28 22 LONG 087 59 23)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 17, 1972 | 1530 | 8.0 | 202 | 600 | May 15, 1973 | 1830 | - | 753 | 570 |
| Nov. 28, 1972 | 1730 | 0.5 | 241 | 525 | July 5, 1973 | 1530 | 24.0 | 166 | 620 |
| Feb. 27, 1973 | 1645 | 0.0 | 149 | 750 | Aug. 22, 1973 | 1330 | 19.5 | 104 | 660 |
| Apr. 5, 1973 | 1300 | 7.5 | 832 | 580 | | | | | |

04087000 MILWAUKEE RIVER AT MILWAUKEE, WIS (LAT 43 06 00 LONG 087 54 32)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Dec. 28, 1972 | 1345 | 1.0 | 300 | 840 | July 12, 1973 | 1615 | 26.0 | 196 | 640 |
| Feb. 6, 1973 | 1124 | 0.0 | 1,110 | 560 | Aug. 1, 1973 | 1545 | 23.0 | 185 | 640 |
| May 30, 1973 | 2000 | 15.5 | 3,060 | 450 | Aug. 21, 1973 | 1545 | 24.0 | 151 | 630 |
| June 20, 1973 | 1600 | 24.0 | 550 | 640 | Oct. 2, 1973 | 1545 | 16.0 | 267 | 650 |

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

MISCELLANEOUS ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued

04087120 MENOMONEE RIVER AT WAUWATOSA, WIS (LAT 43 02 44 LONG 087 54 32)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Nov. 8, 1972 | 1330 | 7.0 | 120 | 1,000 | Apr. 26, 1973 | 0930 | 11.0 | 222 | 1,080 |
| Dec. 28, 1972 | 1630 | 4.0 | 53 | 1,600 | May 31, 1973 | 1145 | 16.0 | 217 | 940 |
| Feb. 5, 1973 | 1500 | 3.0 | 122 | 1,120 | July 12, 1973 | 1345 | 22.5 | 32 | 1,180 |
| Mar. 23, 1973 | 1000 | 6.0 | 116 | 1,200 | July 18, 1973 | 1600 | 22.0 | 27 | 1,140 |
| Apr. 4, 1973 | 1600 | 6.0 | 242 | 980 | Aug. 1, 1973 | 1115 | 19.0 | 27 | 1,100 |
| Apr. 21, 1973 | 1400 | 15.0 | 6,000 | 380 | Aug. 22, 1973 | 0900 | 19.0 | 19 | |
| Apr. 21, 1973 | 1415 | 15.0 | 5,460 | 380 | | | | | |

04087204 OAK CREEK AT SOUTH MILWAUKEE, WIS (LAT 42 55 30 LONG 087 52 12)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Nov. 9, 1972 | 0930 | 6.5 | 21 | 1,110 | Apr. 21, 1973 | 1715 | 16.5 | 712 | 360 |
| Dec. 29, 1972 | 1245 | 1.0 | 11 | 2,600 | May 30, 1973 | 1600 | 16.0 | 27 | 950 |
| Feb. 6, 1973 | 1430 | 3.0 | 16 | 1,300 | July 12, 1973 | 1930 | 26.0 | 3.1 | 1,200 |
| Mar. 21, 1973 | 1545 | 6.0 | 24 | - | Aug. 22, 1973 | 1330 | 22.0 | 3.0 | 940 |

04087220 ROOT RIVER NEAR FRANKLIN, WIS (LAT 42 52 25 LONG 087 59 45)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Nov. 9, 1972 | 1130 | 6.5 | 46 | 1,000 | Apr. 26, 1973 | 1145 | 12.5 | 82 | 945 |
| Dec. 29, 1972 | 1115 | 0.0 | 23 | 1,300 | May 30, 1973 | 1245 | 15.0 | 76 | 800 |
| Feb. 2, 1973 | 1115 | 1.5 | 205 | 1,070 | July 13, 1973 | 0915 | 23.0 | 12 | 1,200 |
| Mar. 22, 1973 | 1100 | 5.0 | 48 | 1,300 | Aug. 22, 1973 | 1545 | 21.5 | 8.0 | 1,100 |
| Apr. 21, 1973 | 1900 | 16.0 | 3,590 | 330 | Oct. 3, 1973 | 1845 | 17.0 | 30 | 90 |
| Apr. 22, 1973 | 0815 | 15.0 | 1,810 | 400 | | | | | |

04087233 ROOT RIVER CANAL NEAR FRANKLIN, WIS (LAT 42 48 55 LONG 087 59 40)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Nov. 9, 1972 | 1400 | 6.5 | 56 | 810 | May 30, 1973 | 1115 | 11.0 | 75 | 750 |
| Dec. 22, 1972 | 1200 | 0.0 | 18 | 1,140 | July 12, 1973 | 1330 | 22.0 | 9.5 | - |
| Feb. 1, 1973 | 1715 | 1.0 | 27 | 860 | Aug. 2, 1973 | 1030 | 19.0 | 5.4 | 1,000 |
| Mar. 22, 1973 | 1400 | 5.0 | 56 | 850 | Aug. 22, 1973 | 1730 | 21.5 | 1.7 | 1,150 |
| Apr. 22, 1973 | 1030 | 14.5 | 652 | 420 | Oct. 3, 1973 | 1500 | 17.5 | 21 | 850 |

04087240 ROOT RIVER AT RACINE, WIS (LAT 42 45 05 LONG 087 49 25)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Nov. 10, 1972 | 1000 | 6.5 | 172 | 930 | Apr. 26, 1973 | 1545 | 12.5 | 537 | 660 |
| Dec. 22, 1972 | 1030 | 0.0 | 74 | 1,220 | May 30, 1973 | 1545 | 15.5 | 620 | 700 |
| Feb. 1, 1973 | 1445 | 0.5 | 99 | 870 | July 12, 1973 | 1145 | 21.0 | 32 | - |
| Mar. 22, 1973 | 1345 | 6.0 | 217 | 900 | Aug. 21, 1973 | 1145 | 20.5 | 10 | 1,000 |
| Apr. 23, 1973 | 0630 | 14.0 | 3,520 | - | Oct. 3, 1973 | 1645 | 17.0 | 129 | - |

04087257 PIKE RIVER NEAR RACINE, WIS (LAT 42 38 49 LONG 087 51 38)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Nov. 9, 1972 | 1645 | 8.0 | 36 | 890 | May 30, 1973 | 1730 | 14.0 | 57 | 810 |
| Dec. 21, 1972 | 1515 | 0.5 | 15 | 980 | July 11, 1973 | 1930 | 22.0 | 9.3 | - |
| Feb. 1, 1973 | 1000 | 1.5 | 19 | 870 | Aug. 1, 1973 | 1900 | 21.0 | 6.8 | 550 |
| Mar. 22, 1973 | 1000 | 3.5 | 45 | 870 | Aug. 21, 1973 | 1415 | 21.0 | 4.6 | 495 |
| Apr. 22, 1973 | 0945 | 13.0 | 547 | 425 | | | | | |

ST. CROIX RIVER BASIN

05333500 ST. CROIX RIVER NEAR DANBURY, WIS (LAT 46 04 28 LONG 092 14 50)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Nov. 6, 1972 | 1400 | 5.0 | 2,010 | 120 | May 10, 1973 | 1045 | 9.5 | 2,050 | 100 |
| Dec. 28, 1972 | 1200 | 0.0 | 1,100 | 110 | July 5, 1973 | 1315 | 25.0 | 1,130 | 130 |
| Jan. 9, 1973 | 1200 | 0.0 | 1,070 | 110 | Aug. 10, 1973 | 0945 | 21.0 | 1,850 | 140 |
| Feb. 1, 1973 | 1200 | 0.0 | 1,160 | 100 | Sept.14, 1973 | 1045 | 14.0 | 1,180 | 130 |
| Mar. 21, 1973 | 1300 | 3.5 | 3,350 | 90 | | | | | |

05340500 ST. CROIX RIVER AT ST. CROIX FALLS, WIS (LAT 45 24 25 LONG 092 38 49)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 11, 1972 | 1350 | 11.0 | 5,420 | 160 | Mar. 29, 1973 | 1250 | 6.5 | 13,000 | 100 |
| Nov. 15, 1972 | 1145 | 1.0 | 6,460 | 150 | May 14, 1973 | 1320 | 12.0 | 7,390 | 140 |
| Jan. 2, 1973 | 1125 | 1.5 | 4,610 | 200 | July 9, 1973 | 1140 | 24.0 | 4,610 | 210 |
| Feb. 6, 1973 | 1020 | 0.5 | 4,580 | 180 | | | | | |

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| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| **CHIPPEWA RIVER BASIN** | | | | | | | | | |
| **05356000 CHIPPEWA RIVER AT BISHOPS BRIDGE NEAR WINTER, WIS (LAT 45 50 57 LONG 091 04 44)** | | | | | | | | | |
| Nov. 1, 1972 | 0915 | 5.0 | 920 | 70 | May 7, 1973 | 1315 | 9.5 | 2,300 | <50 |
| Nov. 10, 1972 | 1125 | 4.0 | 1,910 | 90 | Sept. 3, 1973 | 1340 | 21.5 | 1,220 | 70 |
| Mar. 6, 1973 | 1100 | 2.0 | 323 | 100 | | | | | |
| **05356500 CHIPPEWA RIVER NEAR BRUCE, WIS (LAT 45 47 08 LONG 091 15 39)** | | | | | | | | | |
| Oct. 30, 1972 | 1350 | 4.0 | 1,400 | 80 | July 6, 1973 | 1115 | 23.0 | 876 | 90 |
| Jan. 8, 1973 | 1230 | 0.0 | 1,790 | 90 | July 11, 1973 | 1015 | 22.0 | 867 | 80 |
| Apr. 3, 1973 | 1245 | 4.0 | 1,450 | 70 | Aug. 14, 1973 | 1355 | 21.5 | 2,200 | 80 |
| May 21, 1973 | 1315 | 12.0 | 1,740 | 80 | Sept.28, 1973 | 1045 | 16.0 | 2,520 | 90 |
| **05358500 FLAMBEAU RIVER AT BABBS ISLAND, NEAR WINTER, WIS (LAT 45 46 07 LONG 090 45 41)** | | | | | | | | | |
| Oct. 31, 1972 | 1430 | 4.0 | 1,340 | 120 | July 11, 1973 | 1315 | 25.0 | 1,040 | 100 |
| Nov. 10, 1972 | 1440 | 3.5 | 2,680 | 90 | July 23, 1973 | 1210 | 22.0 | 939 | 110 |
| Dec. 21, 1972 | 1350 | 0.0 | 1,210 | 100 | Aug. 6, 1973 | 1110 | 21.5 | 778 | 100 |
| Jan. 26, 1973 | 1045 | 0.0 | 1,180 | 90 | Aug. 17, 1973 | 1100 | 23.0 | 1,010 | 110 |
| Mar. 19, 1973 | 1330 | 2.0 | 1,710 | 90 | Sept. 3, 1973 | 1215 | 23.0 | 997 | 100 |
| May 7, 1973 | 1620 | 10.0 | 2,780 | 100 | Sept.14, 1973 | 1300 | 18.0 | 789 | 100 |
| June 27, 1973 | 0950 | 21.0 | 1,080 | 90 | | | | | |
| **05359500 SOUTH FORK FLAMBEAU RIVER NEAR PHILLIPS, WIS (LAT 45 42 08 LONG 090 36 58)** | | | | | | | | | |
| Oct. 31, 1972 | 1340 | 4.0 | 765 | 110 | June 26, 1973 | 1200 | 22.0 | 690 | 65 |
| Dec. 21, 1972 | 1050 | 0.0 | 413 | 90 | Aug. 6, 1973 | 1400 | 21.0 | 196 | 90 |
| Jan. 26, 1973 | 1230 | 0.0 | 530 | 100 | Aug. 17, 1973 | 1120 | 24.0 | 299 | 80 |
| Mar. 19, 1973 | 1500 | 2.0 | 3,000 | 70 | Sept.14, 1973 | 1000 | 17.5 | 274 | 100 |
| **05360500 FLAMBEAU RIVER NEAR BRUCE, WIS (LAT 45 22 21 LONG 091 12 34)** | | | | | | | | | |
| Oct. 30, 1972 | 1130 | 5.0 | 2,370 | 80 | May 21, 1973 | 1145 | 13.5 | 3,350 | 60 |
| Jan. 8, 1973 | 0930 | 0.0 | 1,780 | 100 | July 6, 1973 | 1540 | 22.5 | 1,680 | 80 |
| Feb. 13, 1973 | 1040 | 0.0 | 1,120 | 90 | Aug. 14, 1973 | 1015 | 22.0 | 905 | 100 |
| Apr. 3, 1973 | 1130 | 3.5 | 3,120 | 80 | Sept.28, 1973 | 1100 | 16.5 | 4,020 | 90 |
| **05362000 JUMP RIVER AT SHELDON, WIS (LAT 45 18 29 LONG 090 57 23)** | | | | | | | | | |
| Oct. 20, 1972 | 1030 | 5.0 | 370 | 110 | Apr. 30, 1973 | 1140 | 9.5 | 357 | 80 |
| Nov. 20, 1972 | 1045 | 0.5 | 402 | - | May 22, 1973 | 1545 | 15.0 | 490 | 80 |
| Dec. 22, 1972 | 1200 | 0.0 | 149 | 100 | June 28, 1973 | 1030 | 19.5 | 173 | 90 |
| Jan. 25, 1973 | 1140 | 0.0 | 477 | 100 | July 25, 1973 | 1330 | 26.0 | 73 | 160 |
| Feb. 22, 1973 | 1150 | 0.0 | 122 | 180 | Aug. 28, 1973 | 1220 | 21.5 | 63 | - |
| Mar. 15, 1973 | 1350 | 2.0 | 12,700 | <50 | Sept.26, 1973 | 1030 | 17.5 | 249 | 130 |
| Mar. 27, 1973 | 1410 | 3.5 | 1,330 | 90 | | | | | |
| **05365500 CHIPPEWA RIVER AT CHIPPEWA FALLS, WIS (LAT 44 55 35 LONG 091 24 33)** | | | | | | | | | |
| Oct. 10, 1972 | 1010 | 11.5 | 10,500 | 95 | Aug. 3, 1973 | 0840 | 24.0 | 273 | 150 |
| Jan. 3, 1973 | 1415 | 0.5 | 7,480 | 110 | Aug. 20, 1973 | 1030 | 22.5 | 4,300 | 140 |
| Feb. 8, 1973 | 0920 | 0.0 | 5,780 | 130 | Sept.28, 1973 | 1020 | 16.0 | 8,370 | 150 |
| Mar. 29, 1973 | 1300 | 4.0 | 9,780 | 90 | | | | | |
| **05368000 HAY RIVER AT WHEELER, WIS (LAT 45 02 52 LONG 091 54 39)** | | | | | | | | | |
| Oct. 12, 1972 | 1310 | 11.5 | 336 | 320 | Apr. 23, 1973 | 1350 | 11.0 | 382 | 290 |
| Nov. 14, 1972 | 1510 | 1.0 | 330 | 300 | May 17, 1973 | 0820 | 10.0 | 354 | 290 |
| Jan. 2, 1973 | 1200 | 0.0 | 268 | 310 | June 25, 1973 | 0935 | 17.5 | 319 | 320 |
| Feb. 7, 1973 | 1550 | 0.5 | 266 | 300 | July 10, 1973 | 1400 | 23.5 | 242 | 340 |
| Mar. 13, 1973 | 0950 | 4.5 | 3,590 | 140 | Aug. 13, 1973 | 1225 | 18.5 | 218 | 340 |
| Mar. 30, 1973 | 1000 | 9.0 | 405 | 150 | Sept.24, 1973 | 1130 | 12.5 | 238 | 400 |

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CHIPPEWA RIVER BASIN--Continued

05369000 RED CEDAR RIVER AT MENOMONIE, WIS (LAT 44 53 02 LONG 091 55 57)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 12, 1972 | 1010 | 11.5 | 1,530 | 180 | May 17, 1973 | 1015 | 13.5 | 2,930 | 180 |
| Nov. 14, 1972 | 1300 | 1.5 | 3,860 | 200 | May 30, 1973 | 1145 | 17.0 | 2,590 | 290 |
| Jan. 2, 1973 | 1550 | 1.0 | 1,570 | 210 | July 9, 1973 | 1300 | 24.0 | 1,890 | 220 |
| Feb. 7, 1973 | 1000 | 0.5 | 2,410 | 210 | Aug. 13, 1973 | 1505 | 20.5 | 1,330 | 220 |
| Mar. 13, 1973 | 1530 | 1.5 | 10,700 | 160 | Sept. 5, 1973 | 1030 | 21.0 | 1,930 | 200 |
| Apr. 3, 1973 | 1340 | 7.5 | 2,470 | 170 | Sept.24, 1973 | 1350 | 15.0 | 1,970 | 220 |

05369500 CHIPPEWA RIVER AT DURAND, WIS (LAT 44 37 40 LONG 091 58 10)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 17, 1972 | 1500 | 7.0 | 10,900 | 110 | May 18, 1973 | 1000 | 14.5 | 14,300 | 120 |
| Nov. 16, 1972 | 0930 | 1.5 | 13,400 | 130 | July 10, 1973 | 0810 | 24.0 | 5,780 | 140 |
| Jan. 10, 1973 | 1200 | 0.0 | 7,910 | 130 | July 24, 1973 | 1610 | 26.5 | 4,280 | 140 |
| Mar. 14, 1973 | 1040 | 2.0 | 66,200 | 100 | Aug. 20, 1973 | 1100 | 23.5 | 5,920 | 130 |
| Mar. 28, 1973 | 1200 | 5.5 | 14,800 | 110 | Sept.26, 1973 | 0830 | 16.0 | 6,840 | 150 |

05370000 EAU GALLE RIVER AT SPRING VALLEY, WIS (LAT 44 51 10 LONG 092 14 17)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 12, 1972 | 1140 | 12.0 | 15 | 320 | Apr. 3, 1973 | 1210 | 3.5 | 22 | 240 |
| Nov. 16, 1972 | 1350 | 3.5 | 16 | 380 | May 17, 1973 | 1110 | 15.0 | 34 | 260 |
| Dec. 19, 1972 | 1140 | 3.0 | 27 | 420 | Sept.25, 1973 | 1130 | 15.0 | 11 | 340 |
| Mar. 11, 1973 | 1450 | 2.0 | 1,780 | 190 | | | | | |

TREMPEALEAU RIVER BASIN

05379400 TREMPEALEAU RIVER AT ARCADIA, WIS (LAT 44 15 15 LONG 091 30 25)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 2, 1972 | 1100 | 14.5 | 403 | 225 | Mar. 13, 1973 | 1440 | 6.0 | 3,090 | 140 |
| Nov. 15, 1972 | 1125 | 1.5 | 537 | 230 | Apr. 4, 1973 | 0700 | - | 814 | - |
| Jan. 3, 1973 | 1425 | 0.0 | 570 | - | June 29, 1973 | 1135 | 15.0 | 545 | 270 |
| Feb. 16, 1973 | 1020 | 0.0 | 190 | 365 | Aug. 29, 1973 | 1645 | 26.0 | 466 | 230 |
| Mar. 12, 1973 | 1605 | 4.5 | 4,400 | 115 | | | | | |

05379500 TREMPEALEAU RIVER AT DODGE, WIS (LAT 44 07 55 LONG 091 33 14)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 11, 1972 | 1420 | 11.5 | 570 | 275 | Apr. 4, 1973 | 1240 | - | 870 | - |
| Nov. 14, 1972 | 1630 | 2.0 | 597 | 260 | May 23, 1973 | 1500 | 15.0 | 838 | 230 |
| Jan. 3, 1973 | 1230 | 0.0 | 630 | - | June 29, 1973 | 1115 | 16.0 | 603 | 320 |
| Feb. 16, 1973 | 1510 | 0.0 | 338 | 265 | Aug. 30, 1973 | 0935 | 23.5 | 512 | 270 |
| Mar. 12, 1973 | 1810 | 3.0 | 5,330 | 120 | | | | | |

BLACK RIVER BASIN

05381000 BLACK RIVER AT NEILLSVILLE, WIS (LAT 44 33 35 LONG 090 36 54)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 18, 1972 | 1300 | 8.0 | 236 | 200 | Mar. 12, 1973 | 1235 | 3.5 | 15,800 | 130 |
| Nov. 14, 1972 | 1230 | 2.0 | 561 | 140 | May 7, 1973 | 1315 | 5.5 | 1,630 | 95 |
| Dec. 19, 1972 | 1510 | 0.0 | 112 | 200 | June 21, 1973 | 1300 | - | 173 | - |
| Jan. 29, 1973 | 1315 | 0.0 | 338 | 250 | Aug. 16, 1973 | 1210 | 24.0 | 70 | 200 |
| Mar. 7, 1973 | 1545 | 2.0 | 12,700 | 150 | | | | | |

05382000 BLACK RIVER NEAR GALESVILLE, WIS (LAT 44 03 42 LONG 091 17 30)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 11, 1972 | 1100 | - | 2,140 | - | May 23, 1973 | 1040 | 14.0 | 2,160 | 85 |
| Nov. 14, 1972 | 1300 | - | 2,280 | - | June 12, 1973 | 0820 | - | 1,700 | - |
| Jan. 17, 1973 | 1130 | 0.0 | 1,600 | - | June 27, 1973 | 1320 | - | 1,460 | - |
| Feb. 15, 1973 | 1655 | 0.0 | 864 | 100 | July 31, 1973 | 1505 | - | 714 | - |
| Mar. 13, 1973 | 1050 | 2.0 | 34,400 | 60 | Aug. 30, 1973 | 1225 | 25.0 | 740 | 135 |
| Apr. 3, 1973 | 1310 | - | 2,410 | - | Sept.13, 1973 | 1205 | - | 690 | - |

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## WISCONSIN RIVER BASIN

### 05391000 WISCONSIN RIVER AT RAINBOW LAKE, NEAR LAKE TOMAHAWK, WIS (LAT 45 49 58 LONG 089 32 51)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 5, 1972 | 1245 | 12.0 | 1,530 | 70 | May 3, 1973 | 1430 | 4.0 | 2,260 | 50 |
| Nov. 13, 1972 | 1545 | 3.5 | 1,390 | - | June 7, 1973 | 1330 | 15.0 | 1,000 | 75 |
| Jan. 3, 1973 | 1430 | 0.5 | 1,070 | 80 | July 25, 1973 | 1200 | 22.0 | 580 | 120 |
| Feb. 14, 1973 | 1420 | 0.5 | 1,010 | 140 | Sept. 7, 1973 | 1400 | 21.0 | 818 | 180 |
| Mar. 15, 1973 | 1315 | 1.5 | 292 | 75 | | | | | |

### 05393500 SPIRIT RIVER AT SPIRIT FALLS, WIS (LAT 45 26 58 LONG 089 58 47)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 2, 1972 | 1445 | 12.0 | 195 | 75 | Apr. 20, 1973 | 1330 | 6.5 | 345 | 50 |
| Oct. 31, 1972 | 1245 | 2.0 | 85 | 75 | May 2, 1973 | 1445 | 6.0 | 2,240 | 50 |
| Dec. 12, 1972 | 1430 | 0.0 | 29 | 140 | June 4, 1973 | 1500 | 21.0 | 80 | 140 |
| Jan. 23, 1973 | 1445 | 0.0 | 82 | 220 | July 16, 1973 | 1545 | 10.5 | 7.0 | 180 |
| Mar. 15, 1973 | 1415 | 2.0 | 1,650 | 50 | Aug. 15, 1973 | 1615 | 20.5 | 15 | 150 |

### 05394500 PRAIRIE RIVER NEAR MERRILL, WIS (LAT 45 14 09 LONG 089 38 59)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 24, 1972 | 1500 | 3.0 | 335 | 120 | Apr. 16, 1973 | 1300 | 6.5 | 1,230 | 70 |
| Nov. 28, 1972 | 1130 | 0.0 | 134 | 150 | May 14, 1973 | 1530 | 7.0 | 384 | 100 |
| Dec. 21, 1972 | 1530 | 0.0 | 124 | 200 | June 20, 1973 | 1115 | - | 132 | - |
| Jan. 18, 1973 | 1445 | 0.0 | 175 | 280 | July 26, 1973 | 1130 | 19.5 | 107 | 200 |
| Feb. 22, 1973 | 1445 | 0.5 | 107 | 220 | Aug. 21, 1973 | 1530 | 20.5 | 144 | 150 |
| Mar. 14, 1973 | 1315 | 1.5 | 2,080 | 50 | Sept.25, 1973 | 1515 | 15.5 | 139 | 225 |

### 05395000 WISCONSIN RIVER AT MERRILL, WIS (LAT 45 10 41 LONG 089 40 52)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 26, 1972 | 1200 | 7.0 | 4,220 | 200 | Apr. 6, 1973 | 1200 | 12.0 | 4,770 | 120 |
| Dec. 13, 1972 | 1530 | 0.0 | 2,800 | 250 | Apr. 17, 1973 | 1600 | 7.0 | 15,800 | 120 |
| Jan. 16, 1973 | 1445 | 0.5 | 2,750 | 195 | June 4, 1973 | 1030 | 15.0 | 4,700 | 120 |
| Feb. 22, 1973 | 1100 | 0.5 | 969 | 200 | July 30, 1973 | 1130 | 22.0 | 1,910 | 195 |
| Mar. 14, 1973 | 0900 | 2.0 | 13,370 | 120 | Sept. 5, 1973 | 1515 | 22.0 | 3,350 | 150 |

### 05397500 EAU CLAIRE RIVER AT KELLY, WIS (LAT 44 55 06 LONG 089 33 00)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 12, 1972 | 1445 | 13.0 | 311 | 180 | Mar. 14, 1973 | 1600 | 3.0 | 4,390 | 50 |
| Nov. 8, 1972 | 1500 | 5.0 | 597 | 140 | Apr. 16, 1973 | 1645 | 5.5 | 2,980 | 100 |
| Dec. 12, 1972 | 1300 | 0.0 | 144 | 280 | May 14, 1973 | 1230 | 8.5 | 614 | 180 |
| Jan. 18, 1973 | 1130 | 0.0 | 184 | 280 | June 27, 1973 | 1500 | 22.5 | 164 | 300 |
| Feb. 9, 1973 | 1330 | 0.0 | 138 | 360 | Aug. 1, 1973 | 1400 | 20.0 | 119 | 300 |
| Mar. 9, 1973 | 1400 | 0.5 | 2,960 | 80 | Sept. 7, 1973 | 1200 | 17.0 | 168 | 260 |

### 05398000 WISCONSIN RIVER AT ROTHSCHILD, WIS (LAT 44 53 09 LONG 089 38 05)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 30, 1972 | 1230 | 5.5 | 3,650 | 170 | June 27, 1973 | 1300 | 22.0 | 3,290 | 220 |
| Mar. 15, 1973 | 1315 | 3.5 | 37,900 | 140 | Aug. 14, 1973 | 1230 | 19.5 | 2,450 | 260 |
| May 9, 1973 | 1145 | - | 17,300 | - | | | | | |

### 05399500 BIG EAU PLEINE RIVER NEAR STRATFORD, WIS (LAT 44 49 19 LONG 090 04 46)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 30, 1972 | 1345 | 3.0 | 81 | 180 | Apr. 19, 1973 | 1215 | 7.0 | 397 | 95 |
| Dec. 19, 1972 | 1230 | 0.0 | 24 | 280 | May 31, 1973 | 1115 | 17.0 | 277 | 140 |
| Jan. 24, 1973 | 1330 | 0.0 | 125 | 300 | July 13, 1973 | 1215 | 22.0 | 5.0 | 240 |
| Mar. 2, 1973 | 1415 | 0.0 | 32 | 100 | Aug. 17, 1973 | 1100 | 26.5 | 16 | 220 |
| Mar. 7, 1973 | 1245 | 1.0 | 4,300 | 100 | | | | | |

### 05400600 LITTLE PLOVER RIVER NEAR ARNOTT, WIS (LAT 44 28 05 LONG 089 29 20)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 16, 1972 | 1230 | 9.0 | 5.5 | 320 | Apr. 11, 1973 | 1030 | 5.0 | 8.6 | 260 |
| Nov. 9, 1972 | 1315 | 7.0 | 6.9 | 375 | Apr. 16, 1973 | 1400 | 5.5 | 39 | 265 |
| Dec. 19, 1972 | 1145 | 1.0 | 5.7 | 460 | June 5, 1973 | 1345 | 17.0 | 19 | 280 |
| Jan. 29, 1973 | 1130 | 1.5 | 5.2 | 280 | July 17, 1973 | 1230 | 14.5 | 8.8 | 330 |
| Mar. 5, 1973 | 1030 | 3.5 | 6.5 | 340 | Aug. 10, 1973 | 1345 | 16.0 | 8.9 | 360 |

### 05400650 LITTLE PLOVER RIVER AT PLOVER, WIS (LAT 44 28 26 LONG 089 31 44)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 16, 1972 | 1130 | 8.0 | 14 | 300 | Apr. 11, 1973 | 1200 | 7.0 | 20 | 280 |
| Oct. 26, 1972 | 1215 | 9.0 | 17 | 415 | Apr. 16, 1973 | 1145 | 5.5 | 52 | 200 |
| Nov. 9, 1972 | 1130 | 6.5 | 16 | 355 | June 5, 1973 | 1145 | 15.0 | 57 | 220 |
| Dec. 19, 1972 | 1100 | 1.0 | 13 | 400 | July 17, 1973 | 1400 | 15.0 | 18 | 300 |
| Jan. 29, 1973 | 1230 | 2.0 | 12 | 410 | Aug. 10, 1973 | 1115 | 14.0 | 18 | 320 |
| Mar. 5, 1973 | 1145 | 4.0 | 14 | 260 | | | | | |

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WISCONSIN RIVER BASIN--Continued

05401020 TENMILE CREEK DITCH 5 NEAR BANCROFT, WIS (LAT 44 18 08 LONG 089 32 59)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 16, 1972 | 1445 | 9.0 | 11 | 300 | Apr. 11, 1973 | 1530 | 4.5 | 14 | - |
| Oct. 31, 1972 | 1400 | 6.5 | 12 | 315 | Apr. 16, 1973 | 1230 | 6.5 | 38 | 215 |
| Nov. 9, 1972 | 1445 | 6.5 | 14 | 340 | May 10, 1973 | 1530 | - | 27 | - |
| Dec. 19, 1972 | 1345 | 1.5 | 9.8 | 410 | June 5, 1973 | 1445 | 17.0 | 25 | 350 |
| Jan. 29, 1973 | 1400 | 3.0 | 12 | 410 | July 18, 1973 | 1445 | 18.0 | 6.8 | 325 |
| Mar. 5, 1973 | 1315 | 3.0 | 18 | 200 | Aug. 28, 1973 | 1200 | 18.0 | 5.2 | 320 |

05401050 TENMILE CREEK NEAR NEKOOSA, WIS (LAT 44 15 44 LONG 089 48 38)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 17, 1972 | 1515 | 8.0 | 101 | 300 | Mar. 13, 1973 | 0845 | 4.0 | 316 | 200 |
| Nov. 10, 1972 | 1245 | 7.0 | 106 | 330 | Apr. 12, 1973 | 1345 | 5.5 | 149 | 220 |
| Dec. 20, 1972 | 1000 | 0.5 | 71 | 360 | June 5, 1973 | 1445 | 17.0 | 178 | 320 |
| Jan. 30, 1973 | 1100 | 0.5 | 71 | 380 | July 19, 1973 | 1145 | 15.5 | 69 | 340 |
| Mar. 5, 1973 | 1645 | 3.5 | 99 | 260 | Aug. 29, 1973 | 1030 | 15.5 | 51 | 260 |

05401100 FOURTEENMILE CREEK NEAR NEW ROME, WIS (LAT 44 12 15 LONG 089 48 29)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 5, 1972 | 1230 | 12.0 | 172 | 200 | Mar. 6, 1973 | 1015 | 3.0 | 40 | 340 |
| Oct. 5, 1972 | 1500 | - | 204 | - | Apr. 12, 1973 | 1200 | 4.5 | 98 | 240 |
| Oct. 17, 1972 | 1400 | 9.0 | 96 | 240 | June 5, 1973 | 1330 | - | 118 | - |
| Nov. 10, 1972 | 1200 | 6.0 | 177 | 350 | July 19, 1973 | 1015 | 23.5 | 31 | 320 |
| Dec. 20, 1972 | 1100 | 2.0 | 47 | 430 | Aug. 28, 1973 | 1530 | 23.5 | 15 | 710 |
| Jan. 30, 1973 | 0945 | 7.0 | 67 | 400 | | | | | |

05401535 BIG ROCHE A CRI CREEK NEAR ADAMS, WIS (LAT 44 05 52 LONG 089 46 30)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 2, 1972 | 1630 | 11.5 | 160 | 250 | Mar. 13, 1973 | 1115 | 4.0 | 281 | 140 |
| Nov. 10, 1972 | 1030 | 6.5 | 93 | 270 | Apr. 12, 1973 | 0945 | 4.0 | 117 | 150 |
| Dec. 19, 1972 | 1600 | 1.0 | 69 | 300 | June 5, 1973 | 1145 | 15.0 | 125 | 280 |
| Jan. 30, 1973 | 1000 | 1.0 | 68 | 350 | July 18, 1973 | 1815 | 18.0 | 61 | 305 |
| Mar. 5, 1973 | 1545 | 3.5 | 89 | 180 | Aug. 28, 1973 | 1545 | 18.5 | 53 | 470 |

05402000 YELLOW RIVER AT BABOCK, WIS (LAT 44 18 05 LONG 090 07 15)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 18, 1972 | 1015 | 7.0 | 55 | 100 | Apr. 12, 1973 | 1600 | 6.0 | 107 | 85 |
| Nov. 10, 1972 | 1510 | 5.5 | 433 | 140 | June 8, 1973 | 1325 | 21.0 | 165 | 120 |
| Dec. 20, 1972 | 0945 | 0.0 | 15 | 300 | July 19, 1973 | 1415 | 21.0 | 12 | 130 |
| Jan. 29, 1973 | 1555 | 0.0 | 83 | 210 | Aug. 29, 1973 | 1250 | 23.0 | 12 | 150 |
| Mar. 8, 1973 | 1000 | 3.5 | 6,750 | 90 | | | | | |

05403500 LEMONWEIR RIVER AT NEW LISBON, WIS (LAT 43 52 47 LONG 090 09 40)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 12, 1972 | 1400 | 10.0 | 669 | 120 | May 24, 1973 | 1100 | 15.0 | 630 | 105 |
| Mar. 9, 1973 | 1230 | 0.5 | 2,340 | 80 | July 11, 1973 | 1645 | - | 163 | 145 |
| Mar. 13, 1973 | 1445 | 3.0 | 3,560 | - | Sept. 5, 1973 | 1530 | - | 280 | 190 |
| Apr. 5, 1973 | 1015 | 5.5 | 963 | 135 | | | | | |

05403630 HULBURT CREEK NEAR WISCONSIN DELLS, WIS (LAT 43 37 37 LONG 089 48 36)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 17, 1972 | 1115 | 4.5 | 5.2 | 110 | Apr. 5, 1973 | 1500 | 9.5 | 9.4 | 80 |
| Nov. 16, 1972 | 1600 | 2.0 | 5.2 | 105 | June 1, 1973 | 1115 | 16.0 | 10 | 115 |
| Jan. 9, 1973 | 0930 | - | 4.1 | 110 | July 12, 1973 | 1115 | 19.- | 4.5 | 110 |
| Feb. 2, 1973 | 1400 | 0.5 | 20 | 85 | Sept. 6, 1973 | 1430 | 16.5 | 4.1 | 130 |

05404000 WISCONSIN RIVER NEAR WISCONSIN DELLS, WIS (LAT 43 36 22 LONG 089 45 25)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 16, 1972 | 1200 | 10.0 | 8,670 | 140 | June 1, 1973 | 1615 | 19.5 | 26,700 | 90 |
| Mar. 12, 1973 | 1900 | 2.0 | 45,100 | 180 | July 10, 1973 | 1500 | 26.0 | 6,140 | 120 |
| Apr. 11, 1973 | 1530 | 4.5 | 14,400 | 125 | | | | | |

05405000 BARABOO RIVER NEAR BARABOO, WIS (LAT 43 28 51 LONG 089 38 09)

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 16, 1972 | 1515 | 9.5 | 309 | 360 | Apr. 17, 1973 | 1915 | 9.5 | 4,120 | 170 |
| Nov. 21, 1972 | 1515 | 1.5 | 309 | 380 | May 31, 1973 | 2045 | 12.5 | 1,840 | - |
| Jan. 9, 1973 | 1345 | 0.0 | 278 | 340 | July 5, 1973 | 1515 | 23.0 | 376 | 325 |
| Feb. 13, 1973 | 1115 | 0.0 | 280 | - | Sept. 6, 1973 | 1630 | 20.0 | 622 | 310 |
| Apr. 6, 1973 | 1300 | 6.5 | 834 | 320 | | | | | |

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| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| **WISCONSIN RIVER BASIN--Continued** | | | | | | | | | |
| **05406500 BLACK EARTH CREEK AT BLACK EARTH, WIS (LAT 43 08 03 LONG 089 43 56)** | | | | | | | | | |
| Nov. 22, 1972 | 1145 | 4.5 | 29 | 550 | May 19, 1973 | 1200 | 12.5 | 95 | 505 |
| Jan. 11, 1973 | 1545 | - | 25 | 525 | July 13, 1973 | 1415 | 20.0 | 36 | 540 |
| Feb. 28, 1973 | 1645 | 6.0 | 30 | 510 | July 27, 1973 | 1315 | 18.5 | 41 | - |
| Mar. 7, 1973 | 1515 | 6.5 | 431 | 140 | Sept. 4, 1973 | 1445 | 18.5 | 41 | 345 |
| Apr. 13, 1973 | 1445 | 10.5 | 56 | 540 | | | | | |
| **05406640 OTTER CREEK NEAR HIGHLAND, WIS (LAT 43 01 40 LONG 090 16 40)** | | | | | | | | | |
| Nov. 3, 1972 | 1200 | 8.0 | 9.4 | - | May 22, 1973 | 1745 | 10.5 | 24 | 560 |
| Dec. 13, 1972 | 1500 | 2.5 | 7.4 | 490 | June 28, 1973 | 1730 | 19.5 | 17 | 510 |
| Mar. 8, 1973 | 1120 | 4.0 | 51 | 380 | Aug. 22, 1973 | 1030 | 20.0 | 9.3 | 480 |
| **05407000 WISCONSIN RIVER AT MUSCODA, WIS (LAT 43 11 54 LONG 090 26 26)** | | | | | | | | | |
| Jan. 16, 1973 | 1530 | 0.0 | 9,720 | 250 | July 17, 1973 | 1415 | 25.5 | 7,600 | 220 |
| **05410000 KICKAPOO RIVER AT GAYS MILLS, WIS (LAT 43 19 10 LONG 090 51 08)** | | | | | | | | | |
| Nov. 3, 1972 | 1045 | 7.0 | 702 | 275 | June 27, 1973 | 1215 | 19.0 | 628 | 590 |
| Mar. 5, 1973 | 1200 | 4.5 | 691 | 355 | Aug. 27, 1973 | 1400 | 17.5 | 545 | 450 |
| Mar. 14, 1973 | 1545 | 8.0 | 2,130 | - | | | | | |
| **05410500 KICKAPOO RIVER AT STEUBEN, WIS (LAT 43 11 27 LONG 090 52 28)** | | | | | | | | | |
| Nov. 3, 1972 | 1300 | 7.5 | 758 | 300 | Mar. 5, 1973 | 1615 | 4.5 | 741 | 350 |
| Jan. 24, 1973 | 1345 | 0.5 | 548 | - | Mar. 14, 1973 | 1800 | 8.0 | 1,950 | <50 |
| **GRANT RIVER BASIN** | | | | | | | | | |
| **05413500 GRANT RIVER AT BURTON, WIS (LAT 42 43 13 LONG 090 49 09)** | | | | | | | | | |
| Oct. 31, 1972 | 1300 | 6.5 | 220 | 615 | June 28, 1973 | 1115 | 16.5 | 336 | 655 |
| Dec. 15, 1972 | 1215 | 0.5 | 173 | 655 | Aug. 1, 1973 | 1430 | 23.0 | 247 | - |
| Mar. 8, 1973 | 0930 | 4.0 | 375 | - | Aug. 30, 1973 | 1115 | 22.0 | 245 | 540 |
| Mar. 11, 1973 | 1515 | 9.0 | 964 | 350 | Sept. 5, 1973 | 1345 | 19.0 | 212 | - |
| **PLATTE RIVER BASIN** | | | | | | | | | |
| **05414000 PLATTE RIVER NEAR ROCKVILLE, WIS (LAT 42 43 52 LONG 090 38 25)** | | | | | | | | | |
| Oct. 5, 1972 | 1215 | 7.0 | 92 | - | Mar. 11, 1973 | 1330 | 8.0 | 508 | 350 |
| Oct. 31, 1972 | 1530 | 8.0 | 118 | 580 | Aug. 20, 1973 | 1315 | 21.0 | 103 | 570 |
| Mar. 8, 1973 | 0915 | 10.0 | 269 | - | Sept. 5, 1973 | 1450 | 22.5 | 127 | - |
| **GALENA RIVER BASIN** | | | | | | | | | |
| **05415000 GALENA RIVER AT BUNCOMBE, WIS (LAT 42 30 49 LONG 090 22 40)** | | | | | | | | | |
| Nov. 1, 1972 | 0945 | 7.0 | 127 | 800 | Mar. 11, 1973 | 1745 | 9.0 | 450 | 470 |
| Dec. 18, 1972 | 1545 | 0.5 | 78 | 830 | Mar. 12, 1973 | 0945 | 7.5 | 253 | 650 |
| Jan. 25, 1973 | 1600 | 0.5 | 109 | - | May 23, 1973 | 1345 | 14.5 | 203 | 745 |
| Mar. 6, 1973 | 1200 | 5.5 | 118 | 885 | Aug. 22, 1973 | 1430 | 18.5 | 74 | - |
| **ROCK RIVER BASIN** | | | | | | | | | |
| **05426000 CRAWFISH RIVER AT MILFORD, WIS (LAT 43 06 00 LONG 088 50 58)** | | | | | | | | | |
| Oct. 16, 1972 | 1015 | 9.5 | 806 | 580 | Apr. 3, 1973 | 1015 | 6.0 | 1,390 | 530 |
| Nov. 27, 1972 | 0915 | 0.5 | 475 | 610 | May 18, 1973 | 1015 | 13.5 | 2,050 | 510 |
| Jan. 15, 1973 | 1015 | 0.0 | 390 | 710 | July 6, 1973 | 1045 | 25.0 | 163 | 650 |
| Mar. 2, 1973 | 1230 | 0.5 | 619 | 600 | Aug. 20, 1973 | 0915 | 21.0 | 143 | 490 |

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

### MISCELLANEOUS ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance | Date | Time | Water temperature (°C) | Discharge (cfs) | Specific conductance |
|---|---|---|---|---|---|---|---|---|---|
| **ROCK RIVER BASIN--Continued** | | | | | | | | | |
| **05429500 YAHARA RIVER NEAR MC FARLAND, WIS (LAT 43 00 32 LONG 089 18 18)** | | | | | | | | | |
| Oct. 12, 1972 | 1030 | 14.0 | 131 | 400 | Mar. 8, 1973 | 1700 | 4.5 | 482 | 440 |
| Oct. 26, 1972 | 1015 | 8.0 | 153 | 400 | Apr. 12, 1973 | 1500 | 6.0 | 429 | 455 |
| Nov. 10, 1972 | 1530 | 6.0 | 172 | 445 | May 16, 1973 | 1245 | 12.0 | 454 | 460 |
| Nov. 21, 1972 | 1045 | 3.5 | 172 | 440 | May 31, 1973 | 1145 | 19.5 | 346 | 675 |
| Dec. 12, 1972 | 1130 | 0.0 | 125 | 460 | June 13, 1973 | 1545 | 25.5 | 228 | 430 |
| Dec. 29, 1972 | 1430 | 0.5 | 171 | 480 | July 24, 1973 | 1145 | 24.0 | 210 | 425 |
| Jan. 12, 1973 | 1445 | 1.5 | 154 | 510 | Aug. 8, 1973 | 1130 | 23.5 | 199 | 425 |
| Feb. 8, 1973 | 1430 | 3.5 | 203 | 445 | Aug. 31, 1973 | 1400 | 26.0 | 152 | 405 |
| Mar. 1, 1973 | 1530 | 3.0 | 254 | 465 | Sept.17, 1973 | 1030 | 18.0 | 151 | 420 |
| **05430500 ROCK RIVER AT AFTON, WIS (LAT 42 36 33 LONG 089 04 14)** | | | | | | | | | |
| Nov. 8, 1972 | 1230 | 6.5 | 4,390 | 670 | Apr. 23, 1973 | 1500 | 15.5 | 7,630 | 515 |
| Dec. 29, 1972 | 1145 | 1.4 | 1,130 | 750 | May 9, 1973 | 1730 | 14.0 | 9,390 | 520 |
| Jan. 30, 1973 | 1200 | 0.0 | 3,430 | 640 | July 11, 1973 | 1915 | 26.0 | 2,130 | 650 |
| Mar. 9, 1973 | 1215 | 4.0 | 5,410 | 610 | Aug. 23, 1973 | 1330 | 19.5 | 1,080 | 640 |
| Mar. 19, 1973 | 1230 | 4.0 | 8,190 | 440 | | | | | |
| **05431500 TURTLE CREEK NEAR CLINTON, WIS (LAT 42 35 47 LONG 088 51 50)** | | | | | | | | | |
| Nov. 8, 1972 | 1515 | 6.5 | 257 | 670 | May 10, 1973 | 1115 | 14.0 | 464 | 580 |
| Dec. 20, 1972 | 1230 | 0.0 | 128 | 740 | May 31, 1973 | 1600 | 18.5 | 357 | 645 |
| Jan. 30, 1973 | 1460 | 0.0 | 217 | 710 | June 30, 1973 | 1245 | 20.0 | 154 | - |
| Mar. 7, 1973 | 1500 | 8.0 | 1,710 | 250 | July 11, 1973 | 1515 | 24.5 | 146 | 680 |
| Mar. 9, 1973 | 1600 | 4.5 | 413 | 540 | Aug. 22, 1973 | 1630 | 21.0 | 100 | 720 |
| May 2, 1973 | 1315 | 13.0 | 2,030 | 385 | | | | | |
| **05432500 PECATONICA RIVER AT DARLINGTON, WIS (LAT 42 40 40 LONG 090 07 07)** | | | | | | | | | |
| Nov. 1, 1972 | 1215 | - | 217 | 650 | May 23, 1973 | 1700 | 14.5 | 464 | 645 |
| Dec. 13, 1972 | 1215 | 0.5 | 125 | 370 | Aug. 23, 1973 | 1045 | 17.5 | 205 | 620 |
| Jan. 25, 1973 | 1200 | 0.5 | 287 | - | | | | | |
| **05433000 EAST BRANCH PECATONICA RIVER NEAR BLANCHARDVILLE, WIS (LAT 42 47 10 LONG 089 51 40)** | | | | | | | | | |
| Nov. 1, 1972 | 1500 | 7.0 | 138 | 540 | Mar. 6, 1973 | 1715 | 0.5 | 188 | 480 |
| Dec. 19, 1972 | 1330 | 0.5 | 99 | 540 | May 24, 1973 | 1030 | 14.5 | 380 | 545 |
| **05434500 PECATONICA RIVER AT MARTINTOWN, WIS (LAT 42 30 34 LONG 089 47 58)** | | | | | | | | | |
| Nov. 2, 1972 | - | - | 1,180 | 615 | May 23, 1973 | 1000 | 14.5 | 2,080 | 470 |
| May 9, 1973 | 1200 | 13.0 | 370 | | | | | | |
| **05436500 SUGAR RIVER NEAR BRODHEAD, WIS (LAT 42 36 42 LONG 089 23 53)** | | | | | | | | | |
| Nov. 2, 1972 | 1000 | 7.5 | 417 | 540 | May 2, 1973 | 1730 | 13.0 | 3,090 | 305 |
| Dec. 8, 1972 | 1030 | 0.5 | 252 | 560 | May 24, 1973 | 1700 | 17.5 | 708 | 600 |
| Jan. 26, 1973 | 1515 | 1.0 | 439 | - | Aug. 23, 1973 | 1330 | 19.0 | 296 | 520 |
| Mar. 19, 1973 | 1500 | 5.5 | 711 | 550 | | | | | |
| **ILLINOIS RIVER BASIN** | | | | | | | | | |
| **05543830 FOX RIVER AT WAUKESHA, WIS (LAT 43 00 17 LONG 088 14 37)** | | | | | | | | | |
| Nov. 8, 1972 | 1130 | 6.1 | 186 | 820 | Apr. 22, 1973 | 1700 | 17.0 | 2,240 | 360 |
| Dec. 28, 1972 | 1215 | 0.5 | 70 | 1,080 | Apr. 25, 1973 | 1845 | 14.5 | 609 | 575 |
| Feb. 5, 1973 | 1215 | 1.0 | 292 | 585 | June 1, 1973 | 1130 | 19.5 | 290 | 650 |
| Feb. 13, 1973 | 1415 | 1.2 | 109 | 820 | July 12, 1973 | 1130 | 22.0 | 53 | 740 |
| Mar. 21, 1973 | 1015 | 3.5 | 208 | 760 | Aug. 21, 1973 | 1245 | 23.0 | 14 | 970 |
| Apr. 21, 1973 | 1800 | 14.5 | 1,640 | 370 | | | | | |
| **05546500 FOX RIVER AT WILMOT, WIS (LAT 42 30 40 LONG 088 10 45)** | | | | | | | | | |
| Mar. 22, 1973 | 1200 | 7.0 | 1,460 | 720 | Apr. 23, 1973 | 1315 | 17.0 | 6,610 | - |
| Apr. 23, 1973 | 1045 | - | 6,560 | 350 | Apr. 27, 1973 | 1215 | 15.5 | 4,590 | 460 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE SUPERIOR

04024300 - NEMADJI RIVER NR. BOREA, WIS. (LAT 46 34 41 LONG 092 10 54)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| JULY, 1973 | | | | | |
| 02... | 1315 | -- | 64 | 31 | 5.4 |
| AUG. | | | | | |
| 10... | 1025 | 19.0 | 366 | 196 | 194 |
| SEP. | | | | | |
| 13... | 1145 | 14.5 | 72 | 52 | 10 |

04024325 - BALSAM CREEK NR. PATZAU, WIS. (LAT 46 33 28 LONG 092 11 54)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| JULY, 1973 | | | | | |
| 02... | 1400 | -- | 7.5 | 25 | .51 |

04024387 - BLACK RIVER NR. BOYLSTON, WIS. (LAT 46 34 44 LONG 092 08 24)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| JULY, 1973 | | | | | |
| 03... | 1230 | -- | 18 | 14 | .71 |
| AUG. | | | | | |
| 10... | 1140 | 19.0 | 199 | 80 | 43 |
| SEP. | | | | | |
| 13... | 1230 | 13.5 | 12 | 13 | .44 |

04024430 - NEMADJI RIVER NR. SOUTH SUPERIOR, WIS. (LAT 46 38 00 LONG 092 05 38)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| JULY, 1973 | | | | | |
| 02... | 1130 | -- | 108 | 36 | 10 |
| AUG. | | | | | |
| 10... | 1400 | 20.0 | 670 | 194 | 351 |
| SEP. | | | | | |
| 13... | 1330 | 15.0 | 96 | 23 | 6.0 |

| DATE | BED MAT. SIEVE DIAM. % FINER THAN .062 MM | BED MAT. SIEVE DIAM. % FINER THAN .250 MM | BED MAT. SIEVE DIAM. % FINER THAN .500 MM | BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM |
|---|---|---|---|---|---|---|
| SEP. | | | | | | |
| 13... | 0 | 4 | 74 | 96 | 99 | 100 |

04025500 - BOIS BRULE RIVER AT BRULE, WIS. (LAT 46 32 16 LONG 091 35 43)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| NOV., 1972 | | | | | |
| 02... | 1300 | 5.6 | 234 | 19 | 12 |
| JAN., 1973 | | | | | |
| 11... | 1010 | .0 | 630 | 4 | 6.8 |
| 31... | 1030 | .0 | 156 | 5 | 2.1 |
| MAR. | | | | | |
| 12... | 1530 | -- | 236 | 32 | 20 |
| 15... | 0915 | -- | 285 | 20 | 15 |
| 20... | 1300 | 4.5 | 302 | 33 | 27 |
| MAY | | | | | |
| 10... | 0930 | 9.0 | 259 | 19 | 13 |
| JULY | | | | | |
| 05... | 1045 | 17.0 | 135 | 7 | 2.6 |
| AUG. | | | | | |
| 07... | 1[illegible] | 18.0 | 190 | 26 | 13 |
| 07... | 1[illegible] | 20.0 | 218 | 46 | 27 |
| 08... | 1[illegible] | 19.0 | 272 | 198 | 145 |
| SEP. | | | | | |
| 18... | 0930 | 12.0 | 145 | 4 | 1.6 |
| 18... | 1130 | 14.0 | 145 | 5 | 2.3 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE SUPERIOR--Continued

04025500 BOIS BRULE RIVER AT BRULE, WIS.--Continued

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | BED MAT. SIEVE DIAM. % FINER THAN .062 MM | BED MAT. SIEVE DIAM. % FINER THAN .250 MM | BED MAT. SIEVE DIAM. % FINER THAN .500 MM | BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM | BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SEP. | | | | | | | | | | | | |
| 18... | 0930 | 12.0 | 150 | 0 | 1 | 12 | 14 | 14 | 14 | 14 | 16 | 31 |

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| 04026005 - BOIS BRULE RIVER NR. LAKE SUPERIOR, WIS. (LAT 46 42 20 LONG 091 36 07) | | | | | |
| NOV., 1972 | | | | | |
| 02... | 1040 | 4.0 | 338 | 76 | 69 |
| FEB., 1973 | | | | | |
| 15... | 1245 | 1.0 | 159 | 14 | 6.0 |
| MAR. | | | | | |
| 13... | 1715 | -- | 468 | 84 | 106 |
| 14... | 1035 | -- | 535 | 100 | .44 |
| 15... | 1045 | -- | 702 | 254 | 481 |
| MAY | | | | | |
| 09... | 1530 | 12.5 | 268 | 15 | 11 |
| 16... | 1345 | -- | 221 | 20 | 12 |
| JULY | | | | | |
| 05... | 1030 | 18.5 | 154 | 18 | 7.5 |

| DATE | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. SIEVE DIAM. % FINER THAN .062 MM | SUS. SED. SIEVE DIAM. % FINER THAN .125 MM | SUS. SED. SIEVE DIAM. % FINER THAN .250 MM | SUS. SED. SIEVE DIAM. % FINER THAN .500 MM |
|---|---|---|---|---|---|---|
| MAR. | | | | | | |
| 13... | 46 | 51 | 56 | 61 | 75 | 81 |

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .002 MM | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM |
|---|---|---|---|---|---|---|---|
| MAR. | | | | | | | |
| 13... | 1715 | 468 | 84 | 106 | 30 | 36 | 41 |

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | BED MAT. SIEVE DIAM. % FINER THAN .062 MM | BED MAT. SIEVE DIAM. % FINER THAN .250 MM | BED MAT. SIEVE DIAM. % FINER THAN .500 MM | BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 1610 MM | BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV. | | | | | | | | | | | | |
| 02... | 1200 | -- | -- | 2 | 22 | 40 | 46 | 52 | 54 | 56 | 64 | 65 |
| SEP. | | | | | | | | | | | | |
| 18... | 1130 | 10.0 | 153 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|

STREAMS TRIBUTARY TO LAKE SUPERIOR--Continued

04026300 - SIOUX RIVER NR. HASHBURN, WIS. (LAT 46 41 20 LONG 090 57 02)

| | | | | | |
|---|---|---|---|---|---|
| MAR., 1973 | | | | | |
| 14... | 1500 | -- | 150 | 70 | 28 |

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .002 MM | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM |
|---|---|---|---|---|---|---|---|
| MAR. | | | | | | | |
| 14... | 1500 | 150 | 106 | 43 | 28 | 26 | 32 |

| DATE | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. SIEVE DIAM. % FINER THAN .062 MM | SUS. SED. SIEVE DIAM. % FINER THAN .125 MM | SUS. SED. SIEVE DIAM. % FINER THAN .250 MM | SUS. SED. SIEVE DIAM. % FINER THAN .500 MM |
|---|---|---|---|---|---|---|
| MAR. | | | | | | |
| 14... | 36 | 40 | 44 | 49 | 54 | 62 |

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|

04026870 - ALDER CREEK NR. UPSON, WIS. (LAT 46 23 09 LONG 090 24 30)

| | | | | | |
|---|---|---|---|---|---|
| NOV., 1972 | | | | | |
| 01... | 1250 | 38.0 | 7.4 | 2 | .04 |
| 08... | 1615 | 33.0 | 140 | 3 | 1.2 |
| JAN., 1973 | | | | | |
| 11... | 1400 | .0 | 14 | 4 | .15 |
| 30... | 1000 | .0 | 15 | 1 | .04 |
| MAR. | | | | | |
| 29... | 1415 | .5 | 78 | 4 | .84 |
| APR. | | | | | |
| 05... | 1440 | 2.0 | 41 | 2 | .22 |
| MAY | | | | | |
| 08... | 1415 | 18.5 | 86 | 6 | 1.4 |
| JUNE | | | | | |
| 15... | 1010 | 21.0 | 22 | 6 | .36 |
| AUG. | | | | | |
| 07... | 1620 | 22.5 | 6.8 | 7 | .13 |
| SEP. | | | | | |
| 18... | 1005 | 18.5 | 1.5 | 2 | .01 |

| DATE | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | BED MAT. SIEVE DIAM. % FINER THAN .062 MM | BED MAT. SIEVE DIAM. % FINER THAN .250 MM | BED MAT. SIEVE DIAM. % FINER THAN .500 MM | BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM |
|---|---|---|---|---|---|---|
| AUG. | | | | | | |
| 07... | 22.5 | 6.8 | 6 | 57 | 99 | 100 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE SUPERIOR--Continued

04027000 - BAD RIVER NR. ODANAH, WIS. (LAT 46 29 15 LONG 090 41 45)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| NOV., 1972 | | | | | |
| 09... | 1450 | -- | 1833 | 40 | 198 |
| JAN., 1973 | | | | | |
| 11... | 1225 | .0 | 280 | 283 | 214 |
| 30... | 1210 | .0 | 296 | 8 | 6.4 |
| APR. | | | | | |
| 05... | 1310 | 3.5 | 1410 | 373 | 1420 |
| 20... | 1320 | -- | 1473 | 71 | 282 |
| 28... | 1022 | -- | 615 | 12 | 20 |
| MAY | | | | | |
| 05... | 0950 | -- | 2714 | 198 | 1450 |
| 08... | 1700 | 15.0 | 1600 | 85 | 367 |
| 16... | 1700 | -- | 980 | 0 | 1.9 |
| 19... | 1410 | -- | 736 | 14 | 28 |
| 28... | 1915 | -- | 1347 | 34 | 124 |
| JUNE | | | | | |
| 02... | 1333 | -- | 635 | 14 | 24 |
| 06... | 1212 | -- | 1948 | 62 | 326 |
| 11... | 1203 | -- | 726 | 14 | 27 |
| 16... | 1156 | -- | 321 | 10 | 8.7 |
| 23... | 1120 | -- | 255 | 9 | 6.2 |
| JULY | | | | | |
| 03... | 1315 | 25.0 | 210 | 7 | 4.1 |
| 15... | 1215 | -- | 660 | 17 | 30 |
| AUG. | | | | | |
| 08... | 1320 | 19.5 | 1804 | 1920 | 9350 |
| 12... | 1330 | -- | 781 | 40 | 84 |
| 26... | 1540 | -- | 671 | 9 | 16 |
| SEP. | | | | | |
| 15... | 1040 | -- | 181 | 6 | 2.9 |
| 19... | 1245 | 11.5 | 154 | 34 | 14 |
| 29... | 0910 | -- | 615 | 17 | 28 |

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | BED MAT. SIEVE DIAM. % FINER THAN .062 MM | BED MAT. SIEVE DIAM. % FINER THAN .250 MM | BED MAT. SIEVE DIAM. % FINER THAN .500 MM | BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM |
|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | |
| 16... | 1700 | 11.0 | 980 | 1 | 10 | 78 | 98 | 99 | 99 | 100 |

STREAMS TRIBUTARY TO LAKE MICHIGAN

04064500 - PINE R BELOW PINE R PWRPLANT NR. FLORENCE, WIS. (LAT 45 50 16 LONG 088 13 31)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| MAR., 1973 | | | | | |
| 23... | 1000 | -- | 1310 | 10 | 35 |

04071000 - OCONTO RIVER NR. GILLETT, WIS. (LAT 44 51 53 LONG 088 18 00)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| NOV., 1972 | | | | | |
| 29... | -- | -- | 543 | 2 | 2.9 |
| DEC. | | | | | |
| 28... | -- | -- | 497 | 2 | 2.7 |
| JAN., 1973 | | | | | |
| 26... | 1100 | -- | 672 | 3 | 5.4 |
| FEB. | | | | | |
| 26... | 1325 | -- | 427 | 1 | 1.2 |
| APR. | | | | | |
| 27... | 1300 | 8.5 | 1460 | 6 | 24 |
| MAY | | | | | |
| 29... | 1530 | -- | 3100 | 20 | 167 |
| JUNE | | | | | |
| 29... | 1245 | 17.5 | 820 | 13 | 29 |
| JULY | | | | | |
| 31... | 1710 | -- | 521 | 1 | 1.4 |
| AUG. | | | | | |
| 28... | 1620 | -- | 542 | 1 | 1.5 |
| SEP. | | | | | |
| 27... | 1325 | -- | 600 | 1 | 1.6 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued

04071858 - PENSAUKEE RIVER NR. PENSAUKEE, WIS. (LAT 44 49 09 LONG 087 57 15)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| OCT., 1972 | | | | | |
| 07... | 1430 | -- | 56 | 17 | 2.6 |
| 14... | 1450 | -- | 25 | 16 | 1.1 |
| 21... | 1408 | -- | 18 | 14 | .68 |
| 28... | 1300 | -- | 100 | 14 | 3.8 |
| NOV. | | | | | |
| 04... | 1500 | -- | 224 | 2 | 1.2 |
| 11... | 1500 | -- | 102 | 2 | .55 |
| 14... | 1615 | -- | 62 | 22 | 3.7 |
| 18... | 1400 | -- | 42 | 3 | .34 |
| 25... | 1530 | -- | 30 | 3 | .24 |
| DEC. | | | | | |
| 05... | 1530 | -- | 19 | 16 | .82 |
| JAN., 1973 | | | | | |
| 10... | 1330 | -- | 50 | 2 | .27 |
| FEB. | | | | | |
| 06... | 1600 | -- | 115 | 2 | .62 |
| MAR. | | | | | |
| 08... | 1015 | -- | 2330 | 41 | 258 |
| 08... | 1140 | -- | 1340 | 42 | 152 |
| 08... | 1240 | -- | 1340 | 44 | 159 |
| 08... | 1340 | -- | 1340 | 45 | 163 |
| 08... | 1445 | -- | 1340 | 58 | 210 |
| 09... | 0905 | -- | 1670 | 22 | 99 |
| 09... | 1320 | -- | 1670 | 30 | 135 |
| 10... | 1000 | -- | 934 | 45 | 113 |
| 11... | 1230 | -- | 1340 | 53 | 192 |
| 11... | 1400 | -- | 1340 | 47 | 170 |
| 11... | 1430 | -- | 1340 | 50 | 181 |
| 11... | 1630 | -- | 1340 | 44 | 159 |
| 12... | 0830 | -- | 1730 | 35 | 163 |
| 13... | 1340 | -- | 1060 | 67 | 192 |
| 14... | 1600 | -- | 961 | 31 | 80 |
| 15... | 1045 | -- | 1190 | 21 | 67 |
| 15... | 1650 | -- | 1190 | 20 | 64 |
| 23... | 1300 | -- | 137 | 7 | 2.6 |
| 31... | 1540 | -- | 69 | 6 | 1.1 |
| APR. | | | | | |
| 04... | 1400 | -- | 273 | 20 | 15 |
| 10... | 1620 | -- | 126 | 8 | 2.7 |
| 14... | 1000 | -- | 457 | 43 | 53 |
| 14... | 1505 | -- | 457 | 37 | 46 |
| 16... | 1150 | -- | 753 | 93 | 189 |
| 16... | 1800 | -- | 753 | 44 | 89 |
| 17... | 0830 | -- | 1260 | 22 | 75 |
| 17... | 1230 | -- | 1260 | 20 | 68 |
| 17... | 1500 | -- | 1260 | 18 | 61 |
| 20... | 1515 | -- | 319 | 56 | 48 |
| 28... | 1545 | -- | 93 | 18 | 4.5 |
| MAY | | | | | |
| 02... | 1500 | -- | 720 | 64 | 124 |
| 05... | 1700 | -- | 359 | 8 | 7.8 |
| 08... | 1000 | -- | 1270 | 32 | 110 |
| 09... | 0800 | -- | 1420 | 22 | 84 |
| 12... | 1600 | -- | 454 | 17 | 21 |
| 19... | 1600 | -- | 98 | 6 | 1.6 |
| 28... | 1400 | -- | 1910 | 64 | 330 |
| 28... | 1800 | -- | 1910 | 62 | 320 |
| 29... | 0800 | -- | 2840 | 54 | 414 |
| 29... | 1100 | -- | 2650 | 48 | 343 |
| 29... | 1220 | -- | 2840 | 50 | 383 |
| 29... | 1305 | -- | 2840 | 44 | 337 |
| 29... | 1500 | -- | 2840 | 43 | 330 |
| 29... | 1830 | -- | 2840 | 32 | 245 |
| 30... | 0930 | -- | 1650 | 20 | 89 |
| 30... | 1600 | -- | 1650 | 20 | 89 |
| JUNE | | | | | |
| 02... | 1305 | -- | 379 | 22 | 23 |
| 09... | 0910 | -- | 68 | 8 | 1.5 |
| 16... | 1400 | -- | 38 | 7 | .72 |
| 23... | 1140 | -- | 25 | 10 | .67 |
| 30... | 0905 | -- | 32 | 18 | 1.6 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued

04071050 - PENSAUKEE RIVER NR. PENSAUKEE, WIS. (LAT 44 49 09 LONG 087 57 15)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| JULY | | | | | |
| 08... | 1020 | -- | 12 | 18 | .58 |
| 14... | 1755 | -- | 16 | 16 | .69 |
| 21... | 0905 | -- | 8.4 | 20 | .45 |
| 28... | 1550 | -- | 11 | 20 | .59 |
| 31... | 1500 | -- | 11 | 17 | .50 |
| AUG. | | | | | |
| 04... | 1455 | -- | 7.6 | 7 | .14 |
| 11... | 1015 | -- | 15 | 10 | .40 |
| 19... | 1005 | -- | 9.9 | 16 | .43 |
| 25... | 1000 | -- | 9.9 | 2 | .05 |
| SEP. | | | | | |
| 01... | 0955 | -- | 6.2 | 11 | .18 |
| 08... | 1000 | -- | 6.5 | 10 | .18 |
| 13... | 1530 | -- | 5.9 | 5 | .08 |
| 15... | 1320 | -- | 5.7 | 2 | .03 |
| 22... | 1300 | -- | 17 | 5 | .23 |
| 23... | 1440 | -- | 25 | 4 | .27 |
| 30... | 1610 | -- | 14 | 2 | .08 |

04072500 - SILVER LAKE AT PORTAGE, WIS. (LAT 43 33 10 LONG 089 07 58)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| MAR., 1973 | | | | | |
| 07... | 1750 | -- | 26 | 18 | 1.3 |

04072750 - LAWRENCE CREEK NR. WESTFIELD, WIS. (LAT 43 53 52 LONG 089 34 43)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| MAR., 1973 | | | | | |
| 07... | 1750 | -- | 27 | 18 | 1.3 |

04073050 - GRAND RIVER NR. KINGSTON, WIS. (LAT 43 41 09 LONG 089 05 09)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| OCT., 1972 | | | | | |
| 19... | 1240 | -- | 51 | 12 | 1.7 |
| JAN., 1973 | | | | | |
| 19... | 1245 | .0 | 370 | 84 | 84 |
| MAR. | | | | | |
| 01... | 1400 | -- | 51 | 11 | 1.5 |
| 07... | 1520 | -- | 1030 | 412 | 1150 |
| 09... | 1030 | -- | 538 | 129 | 187 |
| 13... | 0945 | 4.0 | 269 | 23 | 17 |
| APR. | | | | | |
| 06... | 1045 | -- | 137 | 32 | 12 |
| MAY | | | | | |
| 17... | 1230 | 12.5 | 116 | 24 | 7.5 |
| JULY | | | | | |
| 10... | 0930 | 22.0 | 45 | 22 | 2.7 |
| AUG. | | | | | |
| 28... | 1035 | 24.0 | 31 | 22 | 1.9 |

| DATE | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .002 MM | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. SIEVE DIAM. % FINER THAN .062 MM | SUS. SED. SIEVE DIAM. % FINER THAN .125 MM | SUS. SED. SIEVE DIAM. % FINER THAN .250 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MAR. | | | | | | | | | | | |
| 07... | 1030 | 384 | 1180 | 72 | 86 | 94 | 97 | 99 | 99 | 99 | 100 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued | | | | | |
| 04073500 - FOX RIVER AT BERLIN, WIS. (LAT 43 57 15 LONG 088 57 10) | | | | | |
| MAR., 1973 | | | | | |
| 09... | 1510 | -- | 5750 | 34 | 520 |
| 12... | 1510 | 1.5 | 5770 | 24 | 374 |
| 19... | 1355 | -- | 5490 | 24 | 369 |
| 04074950 - WOLF RIVER AT LANGLADE, WIS. (LAT 45 11 24 LONG 088 44 00) | | | | | |
| MAR., 1973 | | | | | |
| 15... | 1600 | .5 | 2300 | 54 | 335 |
| 04077000 - WOLF RIVER AT KESHENA FALLS, WIS (LAT 44 53 30 LONG 088 39 20) | | | | | |
| MAR., 1973 | | | | | |
| 16... | 1420 | -- | 4790 | 27 | 349 |
| MAY | | | | | |
| 09... | 1200 | -- | 3380 | 9 | 82 |
| 04078500 - EMBARRASS RIVER NR. EMBARRASS, WIS. (LAT 44 43 29 LONG 088 44 10) | | | | | |
| OCT., 1972 | | | | | |
| 03... | 1435 | -- | 711 | 18 | 19 |
| NOV. | | | | | |
| 09... | 1345 | -- | 441 | 3 | 3.6 |
| FEB., 1973 | | | | | |
| 27... | 0930 | -- | 203 | 3 | 1.6 |
| MAR. | | | | | |
| 08... | 1545 | -- | 3070 | 232 | 2420 |
| 12... | 1010 | -- | 3460 | 55 | 514 |
| APR. | | | | | |
| 27... | 1100 | 8.0 | 652 | 5 | 8.8 |
| JUNE | | | | | |
| 18... | 1400 | 19.5 | 392 | 12 | 13 |
| AUG. | | | | | |
| 01... | 0900 | 65.0 | 169 | 5 | 2.3 |
| SEP. | | | | | |
| 13... | 1205 | -- | 143 | 2 | .77 |
| 04079000 - WOLF RIVER AT NEW LONDON, WIS (LAT 44 23 30 LONG 088 44 25) | | | | | |
| MAR., 1973 | | | | | |
| 12... | 1430 | -- | 12600 | 31 | 1060 |
| 13... | 1145 | -- | 13400 | 12 | 434 |
| 13... | 1330 | -- | 13400 | 30 | 1090 |
| MAY | | | | | |
| 08... | 1430 | -- | 8010 | 11 | 238 |
| 04080900 - TOMORROW RIVER AT AMHERST, WIS. (LAT 44 26 33 LONG 089 17 10) | | | | | |
| MAR., 1973 | | | | | |
| 08... | 1040 | -- | 5.4 | 24 | .35 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued | | | | | |
| 04085290 - MENAMINEE RIVER NR. MENAMINEE, WIS. (LAT 44 27 42 LONG 087 37 48) | | | | | |
| OCT., 1972 | | | | | |
| 06... | 1600 | -- | 68 | 24 | 4.4 |
| 13... | 1600 | -- | 42 | 20 | 2.3 |
| 20... | 1600 | -- | 34 | 18 | 1.7 |
| 23... | 0930 | -- | 431 | 107 | 125 |
| 23... | 1700 | -- | 570 | 112 | 172 |
| 24... | 0800 | -- | 660 | 67 | 119 |
| 25... | 0900 | -- | 348 | 58 | 54 |
| 27... | 1630 | -- | 132 | 15 | 5.3 |
| NOV. | | | | | |
| 03... | 1600 | -- | 213 | 40 | 23 |
| 10... | 1600 | -- | 80 | 25 | 5.4 |
| JAN., 1973 | | | | | |
| 19... | 0730 | -- | 1000 | 70 | 189 |
| 20... | 0700 | -- | 700 | 16 | 30 |
| 20... | 1600 | -- | 450 | 18 | 22 |
| MAR. | | | | | |
| 05... | 1600 | -- | 236 | 24 | 15 |
| 06... | 1600 | -- | 261 | 19 | 13 |
| 07... | 1600 | -- | 1660 | 222 | 995 |
| 08... | 1230 | -- | 773 | 52 | 109 |
| 11... | 1700 | -- | 1362 | 161 | 592 |
| 30... | 1600 | -- | 77 | 20 | 4.2 |
| APR. | | | | | |
| 05... | 1000 | -- | 84 | 22 | 5.0 |
| 08... | 1300 | -- | 332 | 26 | 23 |
| 13... | 1630 | -- | 344 | 110 | 102 |
| 14... | 1130 | -- | 600 | 48 | 78 |
| 16... | 1700 | -- | 480 | 28 | 37 |
| 17... | 0930 | -- | 570 | 40 | 62 |
| 21... | 1500 | -- | 614 | 120 | 212 |
| 28... | 1600 | -- | 840 | 6 | 14 |
| MAY | | | | | |
| 01... | 2000 | -- | 280 | 34 | 26 |
| 02... | 1830 | -- | 732 | 113 | 223 |
| 03... | 0900 | -- | 632 | 100 | 171 |
| 04... | 1730 | -- | 224 | 21 | 13 |
| 08... | 1900 | -- | 591 | 59 | 94 |
| 09... | 0930 | -- | 956 | 85 | 219 |
| 18... | 1830 | -- | 396 | 33 | 35 |
| 19... | 0800 | -- | 98 | 4 | 1.1 |
| 25... | 1700 | -- | 46 | 27 | 3.4 |
| 26... | 0830 | -- | 91 | 46 | 11 |
| 28... | 0800 | -- | 3200 | 611 | 5280 |
| 29... | 0800 | -- | 1220 | 179 | 590 |
| 30... | 0800 | -- | 610 | 74 | 122 |
| 31... | 0800 | -- | 336 | 36 | 33 |
| JUNE | | | | | |
| 01... | 0800 | -- | 274 | 26 | 19 |
| 08... | 0800 | -- | 105 | 38 | 11 |
| 12... | 0800 | -- | 211 | 38 | 22 |
| 15... | 0800 | -- | 105 | 18 | 5.1 |
| 22... | 1600 | -- | 60 | 30 | 4.9 |
| 29... | 1600 | -- | 219 | 132 | 78 |
| JULY | | | | | |
| 06... | 1600 | -- | 206 | 20 | 11 |
| 20... | 1600 | -- | 30 | 22 | 1.8 |
| 27... | 1600 | -- | 28 | 24 | 1.8 |
| AUG. | | | | | |
| 04... | 1600 | -- | 25 | 20 | 1.3 |
| 10... | 1600 | -- | 29 | 21 | 1.6 |
| 18... | 0900 | -- | 104 | 42 | 12 |
| 25... | 0900 | -- | 38 | 16 | 1.6 |
| SEP. | | | | | |
| 01... | 0900 | -- | 25 | 22 | 1.5 |
| 08... | 0900 | -- | 28 | 18 | 1.4 |
| 22... | 1130 | -- | 116 | 35 | 11 |
| 29... | 0900 | -- | 32 | 9 | .78 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued

04085281 - EAST BRANCH TWIN RIVER AT MISHICOT, WIS. (LAT 44 14 16 LONG 087 38 11)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| JAN., 1973 | | | | | |
| 18... | 1235 | .5 | 130 | 10 | 3.5 |
| FEB. | | | | | |
| 28... | 1515 | .0 | 37 | 4 | .40 |
| MAR. | | | | | |
| 07... | 1430 | -- | 442 | 80 | 95 |
| 07... | 1605 | -- | 442 | 96 | 115 |
| 08... | 0850 | -- | 456 | 36 | 44 |
| 27... | 1225 | -- | 89 | 18 | 4.3 |
| MAY | | | | | |
| 17... | 0830 | 9.5 | 88 | 10 | 2.4 |
| JULY | | | | | |
| 11... | 1335 | 24.5 | 29 | 15 | 1.2 |
| AUG. | | | | | |
| 23... | 1600 | 18.8 | 28 | 18 | 1.4 |

04085427 - MANITOWOC RIVER NR. MANITOWOC, WIS. (LAT 44 06 26 LONG 087 42 56)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| NOV., 1972 | | | | | |
| 30... | 1005 | .0 | -- | 78 | 35 |
| FEB., 1973 | | | | | |
| 28... | 1400 | .0 | 155 | 10 | 4.2 |
| MAR. | | | | | |
| 07... | 1710 | -- | 2400 | 360 | 2330 |
| 08... | 1145 | .5 | 2340 | 220 | 1390 |
| 27... | 1030 | -- | 1000 | 10 | 27 |
| MAY | | | | | |
| 16... | 1900 | 14.5 | 740 | 14 | 28 |
| JULY | | | | | |
| 11... | 1040 | 23.0 | 92 | 37 | 9.2 |
| AUG. | | | | | |
| 24... | 0950 | 18.0 | 61 | 9 | 1.5 |

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .002 MM | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM |
|---|---|---|---|---|---|---|---|
| MAR. | | | | | | | |
| 07... | 1710 | 2400 | 502 | 3250 | 27 | 34 | 41 |

| DATE | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. SIEVE DIAM. % FINER THAN .062 MM | SUS. SED. SIEVE DIAM. % FINER THAN .125 MM | SUS. SED. SIEVE DIAM. % FINER THAN .250 MM | SUS. SED. SIEVE DIAM. % FINER THAN .500 MM | SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM |
|---|---|---|---|---|---|---|---|
| MAR. | | | | | | | |
| 07... | 48 | 57 | 62 | 69 | 83 | 97 | 100 |

04086000 - SHEBOYGAN RIVER AT SHEBOYGAN, WIS. (LAT 43 44 25 LONG 087 45 37)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| MAR., 1973 | | | | | |
| 16... | 1225 | -- | 1900 | 40 | 205 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued

04086150 - MILWAUKEE RIVER AT KEWASKUM, WIS. (LAT 43 31 02 LONG 088 13 22)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| OCT., 1972 | | | | | |
| 17... | 1030 | -- | 97 | 13 | 3.4 |
| JAN., 1973 | | | | | |
| 10... | 1040 | -- | 38 | 32 | 3.3 |
| FEB. | | | | | |
| 27... | 1020 | .0 | 63 | 6 | 1.0 |
| MAR. | | | | | |
| 07... | 1700 | -- | 1080 | 38 | 111 |
| 26... | 1445 | -- | 173 | 6 | 3.1 |
| MAY | | | | | |
| 15... | 0950 | 11.0 | 263 | 12 | 8.5 |
| JULY | | | | | |
| 12... | 1145 | 23.0 | 40 | 22 | 2.4 |
| AUG. | | | | | |
| 21... | 1500 | 22.5 | 20 | 18 | 1.0 |

04086200 - E. BR. MILWAUKEE RIVER NR. NEW FANE, WIS. (LAT 43 33 01 LONG 088 11 18)

| | | | | | |
|---|---|---|---|---|---|
| JAN., 1973 | | | | | |
| 16... | 1220 | 12.2 | 21 | 0 | .00 |
| FEB. | | | | | |
| 27... | 1145 | .0 | 29 | 2 | .16 |
| MAR. | | | | | |
| 08... | 0910 | -- | 85 | 12 | 2.8 |
| 26... | 1550 | -- | 11 | 6 | .19 |
| MAY | | | | | |
| 15... | 1150 | 12.5 | 86 | 6 | 1.4 |
| JULY | | | | | |
| 12... | 1300 | 21.5 | 13 | 6 | .21 |
| AUG. | | | | | |
| 22... | 1005 | 18.5 | 13 | 4 | .15 |

04086300 - N. BR. MILWAUKEE RIVER NR. CASCADE, WIS. (LAT 43 36 03 LONG 088 00 43)

| | | | | | |
|---|---|---|---|---|---|
| MAR., 1973 | | | | | |
| 08... | 1740 | -- | 2170 | 36 | 211 |

04086340 - N. BR. MILWAUKEE RIVER NR. FILMORE, WIS. (LAT 43 28 58 LONG 088 03 39)

| | | | | | |
|---|---|---|---|---|---|
| OCT., 1972 | | | | | |
| 17... | 1340 | -- | 51 | 16 | 2.2 |
| NOV. | | | | | |
| 28... | 1325 | .0 | 78 | 88 | 19 |
| JAN., 1973 | | | | | |
| 16... | 1515 | .0 | 42 | 26 | 2.9 |
| FEB. | | | | | |
| 27... | 1410 | .0 | 64 | 8 | 1.4 |
| MAR. | | | | | |
| 08... | 1540 | -- | 763 | 8 | 16 |
| 09... | 0915 | -- | 616 | 14 | 23 |
| APR. | | | | | |
| 05... | 1040 | -- | 242 | 8 | 5.2 |
| MAY | | | | | |
| 31... | 1630 | -- | 504 | 7 | 9.5 |
| JULY | | | | | |
| 05... | 1700 | 25.5 | 46 | 66 | 8.2 |
| AUG. | | | | | |
| 22... | 1140 | 19.0 | 38 | 160 | 16 |

04086500 - CEDAR CREEK NR. CEDARBURG, WIS. (LAT 43 19 45 LONG 087 58 50)

| | | | | | |
|---|---|---|---|---|---|
| JULY, 1973 | | | | | |
| 05... | 1130 | 23.0 | 41 | 11 | 1.2 |
| AUG. | | | | | |
| 20... | 1415 | 24.0 | 21 | 11 | .63 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued

04087020 - MENOMONEE RIVER AT MENOMONEE FALLS, WIS. (LAT 43 11 32 LONG 088 07 58)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| JULY, 1973 | | | | | |
| 18... | 1140 | 22.0 | 4.2 | 32 | .36 |

04087050 - LITTLE MENOMONEE RIVER NR. FREISTADT, WIS. (LAT 43 12 24 LONG 088 02 24)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| APR., 1973 | | | | | |
| 05... | 0800 | 4.0 | 10 | 39 | 1.1 |
| JULY | | | | | |
| 18... | 1245 | 20.0 | .60 | 48 | .08 |

04087088 - UNDERWOOD CREEK AT WAUWATOSA, WISCONSIN (LAT 43 03 25 LONG 088 02 36)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| APR., 1973 | | | | | |
| 04... | 1300 | 5.5 | 29 | 98 | 7.8 |
| JULY | | | | | |
| 18... | 1000 | 25.5 | 3.2 | 21 | .18 |

04087119 - HONEY CREEK AT WAUWATOSA, WISCONSIN (LAT 43 02 30 LONG 088 00 10)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| APR., 1973 | | | | | |
| 04... | 1115 | 6.0 | 70 | 182 | 34 |
| 05... | 0910 | 8.0 | 18 | 66 | 3.3 |
| JULY | | | | | |
| 18... | 0845 | 14.5 | 9.4 | 53 | 1.3 |

04087120 - MENOMONEE RIVER AT WAUWATOSA, WIS. (LAT 43 02 44 LONG 087 59 59)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| APR., 1973 | | | | | |
| 04... | 0955 | 1.5 | 44 | 48 | 5.7 |
| 04... | 1405 | 6.0 | 242 | 86 | 56 |
| 21... | 1330 | -- | 5460 | 979 | 14400 |
| JULY | | | | | |
| 18... | 1505 | 22.0 | 27 | 35 | 2.6 |

04087204 - OAK CREEK AT SOUTH MILWAUKEE, WIS. (LAT 42 55 30 LONG 087 52 12)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| NOV., 1972 | | | | | |
| 09... | 0920 | 6.5 | 21 | 67 | 3.8 |
| FEB., 1973 | | | | | |
| 06... | 1400 | 3.0 | 16 | 24 | 1.0 |
| MAR. | | | | | |
| 21... | 1600 | -- | 18 | 12 | .58 |
| APR. | | | | | |
| 21... | 1640 | -- | 523 | 678 | 957 |
| MAY | | | | | |
| 30... | 1600 | -- | 27 | 29 | 2.1 |
| JULY | | | | | |
| 12... | 1920 | 26.0 | 3.1 | 38 | .32 |
| AUG. | | | | | |
| 22... | 1315 | 22.0 | 2.9 | 12 | .10 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued

04087220 - ROOT RIVER NR. FRANKLIN, WIS. (LAT 42 52 25 LONG 087 59 45)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| FEB., 1973 | | | | | |
| 02... | 1120 | 1.5 | 285 | 114 | 63 |
| MAR. | | | | | |
| 22... | 1100 | -- | 39 | 8 | .84 |
| APR. | | | | | |
| 21... | 1830 | -- | 2740 | 689 | 5100 |
| 22... | 0655 | -- | 1810 | 280 | 1370 |
| 22... | 0810 | -- | 1560 | 242 | 1020 |
| 26... | 1200 | -- | 98 | 48 | 11 |
| MAY | | | | | |
| 30... | 1250 | -- | 76 | 27 | 5.6 |
| JULY | | | | | |
| 13... | 0910 | 29.5 | 12 | 74 | 2.4 |
| AUG. | | | | | |
| 22... | 1540 | 22.0 | 8.0 | 48 | .86 |

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .002 MM | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. SIEVE DIAM. % FINER THAN .062 MM | SUS. SED. SIEVE DIAM. % FINER THAN .125 MM | SUS. SED. SIEVE DIAM. % FINER THAN .250 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APR. 21... | 1830 | 2740 | 734 | 5430 | 74 | 88 | 94 | 97 | 99 | 99 | 99 | 100 |

04087233 - ROOT RIVER CANAL NR. FRANKLIN, WIS. (LAT 42 48 55 LONG 087 59 40)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| APR., 1973 | | | | | |
| 22... | 0915 | -- | 603 | 476 | 775 |
| AUG. | | | | | |
| 02... | -- | 19.0 | 5.4 | 129 | 1.8 |

04087240 - ROOT RIVER AT RACINE, WIS. (LAT 42 45 05 LONG 087 49 25)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| NOV., 1972 | | | | | |
| 18... | 0900 | 6.5 | 188 | 68 | 33 |
| DEC. | | | | | |
| 22... | 0845 | .0 | 64 | 48 | 8.3 |
| FEB., 1973 | | | | | |
| 01... | 1315 | .5 | 99 | 174 | 47 |
| MAR. | | | | | |
| 22... | 1435 | 6.0 | 189 | 21 | 11 |
| APR. | | | | | |
| 22... | 1240 | -- | 3870 | 542 | 4490 |
| 23... | 0450 | -- | 3480 | 377 | 3460 |
| 24... | 0605 | -- | 3480 | 444 | 4080 |
| 26... | 1720 | -- | 537 | 72 | 104 |
| MAY | | | | | |
| 30... | 1515 | 15.5 | 612 | 48 | 79 |
| JULY | | | | | |
| 12... | 1010 | 21.0 | 32 | 127 | 11 |
| AUG. | | | | | |
| 21... | 1045 | 20.5 | 18 | 133 | 3.7 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued

04087257 - PIKE RIVER NR. RACINE, WIS. (LAT 42 38 49 LONG 087 51 38)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| NOV., 1972 | | | | | |
| 09... | 1600 | 7.8 | 37 | 76 | 7.6 |
| DEC. | | | | | |
| 21... | 1435 | .6 | 16 | 9 | .41 |
| FEB., 1973 | | | | | |
| 01... | 0910 | 2.0 | 21 | 17 | 1.0 |
| MAR. | | | | | |
| 22... | 1050 | 3.5 | 44 | 19 | 2.3 |
| APR. | | | | | |
| 21... | 1400 | -- | 349 | 588 | 554 |
| 22... | 0930 | 13.0 | 546 | 817 | 1200 |
| MAY | | | | | |
| 30... | 1645 | 14.0 | 57 | 40 | 6.2 |
| JULY | | | | | |
| 11... | 1845 | 22.0 | 9.3 | 22 | .55 |
| AUG. | | | | | |
| 01... | 1800 | -- | 6.7 | 14 | .26 |
| 21... | 1306 | 21.0 | 4.6 | 9 | .11 |

CHIPPEWA RIVER BASIN

05389500 - S. FK. FLAMBEAU RIVER NR. PHILLIPS, WIS. (LAT 45 42 08 LONG 090 36 58)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| OCT., 1972 | | | | | |
| 03... | 0905 | -- | 1990 | 8 | 43 |
| 06... | 0930 | -- | 2360 | 8 | 51 |
| 17... | 0905 | -- | 926 | 8 | 20 |
| 26... | 1000 | -- | 1050 | 6 | 17 |
| 31... | 1215 | 4.0 | 759 | 2 | 4.1 |
| NOV. | | | | | |
| 04... | 1000 | -- | 2380 | 7 | 45 |
| 07... | 0835 | -- | 2040 | 2 | 11 |
| 14... | 0925 | -- | 1440 | 1 | 3.9 |
| 21... | 0930 | -- | 667 | 1 | 1.8 |
| 28... | 0925 | -- | 481 | 1 | 1.3 |
| DEC. | | | | | |
| 05... | 1000 | -- | 844 | 6 | 14 |
| 12... | 0915 | -- | 459 | 200 | 248 |
| 19... | 0930 | -- | 444 | 1 | 1.2 |
| 26... | 1045 | -- | 420 | 3 | 3.4 |
| JAN., 1973 | | | | | |
| 09... | 1510 | -- | 488 | 22 | 29 |
| 16... | 0900 | -- | 472 | 4 | 5.1 |
| 26... | 1405 | 1.0 | 531 | 3 | 4.3 |
| 30... | 0900 | -- | 741 | 4 | 8.0 |
| FEB. | | | | | |
| 06... | 0920 | -- | 778 | 4 | 8.4 |
| 14... | 0910 | -- | 676 | 4 | 7.3 |
| 20... | 0905 | -- | 611 | 2 | 3.3 |
| 27... | 0815 | -- | 600 | 2 | 3.2 |
| MAR. | | | | | |
| 06... | 0830 | -- | 602 | 8 | 13 |
| 12... | 0840 | -- | 3110 | 10 | 84 |
| 12... | 1600 | -- | 3370 | 10 | 91 |
| 13... | 0805 | -- | 3390 | 7 | 64 |
| 13... | 1700 | -- | 3620 | 9 | 83 |
| 14... | 0900 | -- | 3730 | 5 | 50 |
| 14... | 1700 | -- | 4030 | 6 | 65 |
| 15... | 1500 | -- | 5070 | 11 | 151 |
| 16... | 0900 | -- | 5340 | 9 | 130 |
| 17... | 1600 | -- | 5070 | 6 | 82 |
| 19... | 1650 | 2.0 | 3020 | 6 | 49 |
| 20... | 0900 | -- | 2560 | 2 | 14 |
| 27... | 0905 | -- | 1880 | 4 | 23 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

CHIPPEWA RIVER BASIN--Continued

05359500 - S. FK. FLAMBEAU RIVER NR. PHILLIPS, WIS. (LAT 45 42 08 LONG 090 36 58)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| APR., 1973 | | | | | |
| 03... | 0900 | -- | 1580 | 2 | 11 |
| 10... | 0915 | -- | 1000 | 2 | 5.4 |
| 17... | 0910 | -- | 2100 | 3 | 17 |
| 24... | 0855 | -- | 1270 | 6 | 21 |
| MAY | | | | | |
| 03... | 0915 | -- | 3660 | 12 | 119 |
| 04... | 1430 | 12.0 | 3830 | 10 | 103 |
| 08... | 0900 | -- | 2357 | 8 | 51 |
| 15... | 0920 | -- | 1890 | 8 | 41 |
| 22... | 0805 | -- | 1112 | 9 | 27 |
| 29... | 0830 | -- | 2222 | 14 | 84 |
| JUNE | | | | | |
| 05... | 0905 | -- | 2231 | 8 | 48 |
| 13... | 0830 | -- | 1231 | 9 | 30 |
| 18... | 0900 | -- | 1550 | 8 | 33 |
| 26... | 0840 | -- | 708 | 6 | 11 |
| 28... | 1345 | 22.0 | 709 | 2 | 3.8 |
| JULY | | | | | |
| 03... | 0840 | -- | 512 | 0 | .00 |
| 10... | 0845 | -- | 302 | 2 | 1.6 |
| 17... | 0905 | -- | 257 | 0 | .00 |
| 24... | 0810 | -- | 216 | 2 | 1.2 |
| 31... | 0925 | -- | 251 | 2 | 1.4 |
| AUG. | | | | | |
| 06... | 1300 | 21.0 | 201 | 4 | 2.2 |
| 07... | 0900 | -- | 220 | 2 | 1.2 |
| 14... | 0910 | -- | 402 | 2 | 2.2 |
| 17... | 1300 | 24.0 | 303 | 4 | 3.3 |
| 21... | 0930 | -- | 257 | 1 | .69 |
| 27... | 0845 | -- | 247 | 2 | 1.3 |
| SEP. | | | | | |
| 04... | 0855 | -- | 790 | 3 | 6.4 |
| 11... | 0830 | -- | 323 | 3 | 2.6 |
| 14... | 1115 | 17.5 | 286 | 2 | 1.5 |
| 18... | 0907 | -- | 246 | 0 | .00 |
| 25... | 0854 | -- | 314 | 3 | 2.5 |

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | BED MAT. SIEVE DIAM. % FINER THAN .062 MM | BED MAT. SIEVE DIAM. % FINER THAN .250 MM | BED MAT. SIEVE DIAM. % FINER THAN .500 MM | BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM | BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | | |
| 31... | 1200 | -- | -- | 0 | 2 | 16 | 28 | 42 | 61 | 80 | 88 | 100 |
| AUG. | | | | | | | | | | | | |
| 17... | 1300 | 24.0 | 299 | 0 | 19 | 86 | 98 | 100 | 100 | -- | -- | -- |

05362000 - JUMP RIVER AT SHELDON, WIS. (LAT 45 18 30 LONG 090 57 20)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| MAR., 1973 | | | | | |
| 15... | 1300 | 2.0 | 12600 | 24 | 816 |

05365500 - CHIPPEWA RIVER AT CHIPPEWA FALLS, WIS. (LAT 44 55 37 LONG 091 24 33)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| MAR., 1973 | | | | | |
| 13... | 1540 | -- | 52500 | 48 | 6800 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

CHIPPEWA RIVER BASIN--Continued

05368000 - HAY RIVER AT WHEELER, WIS. (LAT 45 02 52 LONG 091 54 39)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| OCT., 1972 | | | | | |
| 12... | 1330 | 11.7 | 321 | 9 | 7.8 |
| NOV. | | | | | |
| 14... | 1455 | 1.1 | 312 | 7 | 5.9 |
| JAN., 1973 | | | | | |
| 02... | 1320 | .0 | 267 | 10 | 7.2 |
| FEB. | | | | | |
| 07... | 1550 | .5 | 264 | 8 | 5.7 |
| MAR. | | | | | |
| 11... | 1400 | 3.5 | 1250 | 178 | 601 |
| 12... | 1800 | 3.5 | 2800 | 233 | 1760 |
| 13... | 1000 | 4.5 | 3590 | 134 | 1300 |
| 13... | 1100 | 4.5 | 3590 | 132 | 1280 |
| 30... | 1105 | 9.0 | 403 | 23 | 25 |
| APR. | | | | | |
| 05... | 1545 | -- | 289 | 14 | 11 |
| 14... | 1415 | -- | 347 | 10 | 9.4 |
| 20... | 1350 | -- | 412 | 32 | 36 |
| 23... | 1505 | 11.0 | 370 | 10 | 10 |
| 28... | 1500 | -- | 335 | 10 | 9.0 |
| MAY | | | | | |
| 08... | 1430 | -- | 603 | 50 | 81 |
| 13... | 0930 | 10.0 | 536 | 139 | 201 |
| 17... | 0930 | 10.0 | 354 | 8 | 7.6 |
| 21... | 1450 | 14.0 | 361 | 13 | 13 |
| 27... | 0825 | 14.0 | 1110 | 166 | 497 |
| JUNE | | | | | |
| 03... | 0900 | 17.0 | 421 | 22 | 25 |
| 10... | 0800 | 19.0 | 400 | 16 | 17 |
| 20... | 0820 | 17.0 | 300 | 22 | 18 |
| 25... | 1225 | 17.5 | 270 | 16 | 12 |
| JULY | | | | | |
| 04... | 0815 | 18.0 | 248 | 27 | 18 |
| 10... | 1400 | 23.5 | 234 | 18 | 11 |
| 14... | 0700 | 17.0 | 231 | 18 | 11 |
| 21... | 1406 | 20.0 | 212 | 11 | 6.3 |
| 31... | 1330 | 18.0 | 230 | 14 | 9.0 |
| AUG. | | | | | |
| 13... | 1235 | 18.5 | 220 | 9 | 5.3 |
| 23... | 1410 | 18.0 | 348 | 31 | 29 |
| 29... | 1300 | 22.5 | 233 | 22 | 14 |
| SEP., 1973 | | | | | |
| 13... | 0850 | 15.0 | 230 | 18 | 11 |
| 22... | 0305 | -- | 266 | 12 | 8.6 |
| 24... | 1230 | 12.5 | 230 | 20 | 13 |

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | BED MAT. SIEVE DIAM. % FINER THAN .062 MM | BED MAT. SIEVE DIAM. % FINER THAN .250 MM | BED MAT. SIEVE DIAM. % FINER THAN .500 MM | BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM |
|---|---|---|---|---|---|---|---|---|---|---|
| SEP. | | | | | | | | | | |
| 24... | 1300 | 12.5 | 226 | 0 | 3 | 38 | 80 | 96 | 99 | 100 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| **CHIPPEWA RIVER BASIN--Continued** | | | | | |
| **05369500 - CHIPPEWA RIVER AT DURAND, WIS. (LAT 44 37 40 LONG 091 50 18)** | | | | | |
| MAR., 1973 | | | | | |
| 14... | 1030 | 2.0 | 65200 | 144 | 25400 |
| **TREMPEALEAU RIVER BASIN** | | | | | |
| **05379480 - TREMPEALEAU RIVER AT ARCADIA, WIS. (LAT 44 15 15 LONG 091 30 25)** | | | | | |
| NOV., 1972 | | | | | |
| 15... | 1115 | -- | 518 | 88 | 123 |
| MAR., 1973 | | | | | |
| 12... | 1600 | -- | 4400 | 632 | 7510 |
| APR. | | | | | |
| 04... | 0810 | -- | 728 | 121 | 238 |
| MAY | | | | | |
| 23... | 1415 | -- | 808 | 130 | 294 |
| AUG. | | | | | |
| 29... | 1645 | 26.0 | 466 | 100 | 126 |
| **BLACK RIVER BASIN** | | | | | |
| **05381000 - BLACK RIVER AT NEILLSVILLE, WIS. (LAT 44 33 35 LONG 090 36 50)** | | | | | |
| NOV., 1972 | | | | | |
| 14... | 1230 | -- | 561 | 4 | 6.1 |
| MAY , 1973 | | | | | |
| 07... | 1315 | 5.5 | 1710 | 38 | 175 |
| AUG. | | | | | |
| 16... | 1100 | 24.0 | 66 | 1 | .18 |
| **05381350 - LEVIS CREEK AT BLACK RIVER FALLS, WIS. (LAT 44 18 42 LONG 090 48 23)** | | | | | |
| OCT., 1972 | | | | | |
| 12... | 0845 | -- | 39 | 7 | .74 |
| NOV. | | | | | |
| 15... | 1410 | -- | 45 | 4 | .49 |
| APR., 1973 | | | | | |
| 02... | 1720 | -- | 73 | 12 | 2.4 |
| MAY | | | | | |
| 22... | 1735 | -- | 139 | 14 | 5.3 |
| JUNE | | | | | |
| 29... | 1430 | -- | 37 | 32 | 3.2 |
| AUG. | | | | | |
| 29... | 1430 | -- | 69 | 4 | .75 |
| **WISCONSIN RIVER BASIN** | | | | | |
| **05393500 - SPIRIT RIVER AT SPIRIT FALLS, WIS. (LAT 45 26 58 LONG 089 58 47)** | | | | | |
| OCT., 1972 | | | | | |
| 02... | 1500 | -- | 195 | 4 | 2.1 |
| 31... | 1255 | -- | 85 | 0 | .00 |
| DEC. | | | | | |
| 12... | -- | -- | 29 | 4 | .31 |
| JAN., 1973 | | | | | |
| 19... | 1230 | -- | 110 | 4 | 1.2 |
| MAR. | | | | | |
| 15... | 1425 | -- | 1570 | 6 | 25 |
| APR. | | | | | |
| 20... | 1145 | 6.5 | 345 | 9 | 8.4 |
| MAY | | | | | |
| 02... | 1500 | 7.5 | 2200 | 24 | 143 |
| JUNE | | | | | |
| 04... | 1540 | 21.0 | 80 | 8 | 1.7 |
| AUG. | | | | | |
| 15... | 1600 | 20.5 | 16 | 2 | .09 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

WISCONSIN RIVER BASIN--Continued

05394500 - PRAIRIE RIVER NR. MERRILL, WIS. (LAT 45 14 09 LONG 089 38 59)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| MAR., 1973 | | | | | |
| 14... | 1320 | -- | 2100 | 8 | 45 |
| APR. | | | | | |
| 16... | 1310 | -- | 1300 | 22 | 77 |

05395000 - WISCONSIN RIVER AT MERRILL, WIS. (LAT 45 10 40 LONG 089 40 45)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| APR., 1973 | | | | | |
| 06... | 1200 | -- | 4770 | 11 | 142 |
| SEP. | | | | | |
| 05... | 1500 | 21.0 | 3120 | 5 | 42 |

05397500 - EAU CLAIRE RIVER AT KELLY, WIS. (LAT 44 55 06 LONG 089 33 00)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| OCT., 1972 | | | | | |
| 12... | 1500 | 46.0 | 311 | 3 | 2.5 |
| NOV. | | | | | |
| 08... | 1500 | -- | 597 | 3 | 4.8 |
| DEC. | | | | | |
| 12... | 1400 | -- | 152 | 2 | .82 |
| JAN., 1973 | | | | | |
| 18... | 1100 | -- | 184 | 3 | 1.5 |
| FEB. | | | | | |
| 09... | 1330 | -- | 138 | 0 | .00 |
| MAR. | | | | | |
| 06... | 1300 | -- | 194 | 2 | 1.0 |
| 14... | 1445 | -- | 4390 | 8 | 95 |
| APR. | | | | | |
| 16... | 1440 | -- | 2980 | 25 | 201 |
| MAY | | | | | |
| 14... | 1240 | -- | 614 | 8 | 13 |
| JUNE | | | | | |
| 27... | -- | -- | 164 | 8 | 3.5 |
| AUG. | | | | | |
| 01... | 1330 | 20.0 | 114 | 1 | .31 |
| SEP. | | | | | |
| 07... | 1100 | -- | 162 | 2 | .87 |

05399500 - BIG EAU PLEINE RIVER NR. STRATFORD, WIS. (LAT 44 49 19 LONG 090 04 46)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| OCT., 1972 | | | | | |
| 02... | 0845 | -- | 229 | 6 | 3.7 |
| 09... | 0745 | -- | 146 | 6 | 2.4 |
| 16... | 1605 | -- | 63 | 4 | .68 |
| 23... | 1600 | -- | 1830 | 40 | 198 |
| 24... | 0745 | -- | 1650 | 26 | 116 |
| 25... | 1330 | -- | 40 | 10 | 1.1 |
| 29... | 1045 | -- | 127 | 2 | .69 |
| NOV. | | | | | |
| 02... | 1615 | -- | 2600 | 86 | 604 |
| 03... | 1215 | -- | 2470 | 52 | 347 |
| 06... | 1215 | -- | 305 | 12 | 9.9 |
| 11... | 1530 | -- | 200 | 4 | 2.2 |
| 20... | 1020 | -- | 43 | 6 | .70 |
| 27... | 1145 | -- | 42 | 4 | .45 |
| DEC. | | | | | |
| 19... | 1230 | -- | 24 | 1 | .06 |
| JAN., 1973 | | | | | |
| 24... | 1340 | -- | 125 | 1 | .34 |
| MAR. | | | | | |
| 02... | 1410 | -- | 31 | 6 | .50 |
| 07... | 1205 | -- | 4400 | 39 | 463 |
| 07... | 1605 | -- | 5300 | 43 | 615 |
| 08... | 0730 | -- | 3180 | 16 | 137 |
| 08... | 1130 | -- | 3180 | 22 | 189 |
| 09... | 1630 | -- | 1780 | 13 | 62 |
| 10... | 0755 | -- | 1300 | 4 | 14 |
| 11... | 0800 | -- | 5970 | 62 | 999 |
| 11... | 1145 | -- | 6540 | 82 | 1450 |
| 12... | 1150 | -- | 3380 | 27 | 246 |
| 14... | 0805 | -- | 4400 | 72 | 855 |
| 14... | 1200 | -- | 4550 | 54 | 663 |
| 14... | 1245 | -- | 1780 | 20 | 92 |
| 15... | 1150 | -- | 2080 | 26 | 146 |
| 20... | 1315 | -- | 252 | 2 | 1.4 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| WISCONSIN RIVER BASIN--Continued | | | | | |
| 05399500 - BIG EAU PLEINE RIVER NR. STRATFORD, WIS. (LAT 44 49 19 LONG 090 04 46) | | | | | |
| APR., 1973 | | | | | |
| 03... | 1135 | -- | 1380 | 16 | 60 |
| 10... | 1140 | -- | 195 | 2 | 1.1 |
| 15... | 1655 | -- | 3600 | 130 | 1260 |
| 16... | 0820 | -- | 7690 | 102 | 2120 |
| 16... | 1635 | -- | 7510 | 53 | 1080 |
| 17... | 0800 | -- | 2500 | 28 | 189 |
| 18... | 0800 | -- | 806 | 10 | 22 |
| 19... | 0945 | -- | 384 | 16 | 17 |
| 20... | 1145 | -- | 345 | 9 | 8.4 |
| 23... | 1115 | -- | 183 | 5 | 2.5 |
| MAY | | | | | |
| 01... | 1200 | -- | 2200 | 84 | 499 |
| 02... | 1500 | -- | 2200 | 24 | 143 |
| 02... | 1615 | -- | 8600 | 140 | 3250 |
| 03... | 0745 | -- | 3000 | 36 | 292 |
| 07... | 0800 | -- | 216 | 16 | 9.3 |
| 08... | 0800 | -- | 1780 | 33 | 159 |
| 09... | 0800 | -- | 731 | 12 | 24 |
| 14... | 1310 | -- | 159 | 6 | 2.6 |
| 22... | 1535 | -- | 105 | 8 | 2.3 |
| 25... | 0800 | -- | 7480 | 115 | 2320 |
| 25... | 1605 | -- | 5310 | 68 | 975 |
| 26... | 0745 | -- | 2170 | 30 | 176 |
| 28... | 1130 | -- | 4750 | 66 | 846 |
| 28... | 1635 | -- | 4900 | 46 | 609 |
| 29... | 0735 | -- | 1700 | 18 | 83 |
| 31... | 1120 | -- | 284 | 12 | 9.2 |
| JUNE | | | | | |
| 04... | 1425 | -- | 1570 | 6 | 25 |
| 04... | 1440 | -- | 108 | 8 | 2.3 |
| 10... | 1930 | -- | 42 | 10 | 1.1 |
| 18... | 0910 | -- | 220 | 13 | 7.7 |
| 25... | 1650 | -- | 18 | 12 | .58 |
| JULY | | | | | |
| 02... | 1115 | -- | 29 | 16 | 1.3 |
| 09... | 1100 | -- | 8.0 | 11 | .24 |
| 13... | 1220 | 22.0 | 5.5 | 1 | .01 |
| 16... | 1210 | -- | 5.0 | 7 | .09 |
| 24... | 0915 | -- | 6.8 | 11 | .20 |
| 30... | 1210 | -- | 11 | 12 | .36 |
| AUG. | | | | | |
| 06... | 1640 | -- | 8.6 | 13 | .30 |
| 13... | 1945 | -- | 15 | 2 | .08 |
| 17... | 1100 | 22.0 | 19 | 2 | .10 |
| 19... | 1920 | -- | 9.2 | 3 | .07 |
| 27... | 1935 | -- | 5.1 | 2 | .03 |
| 29... | 0945 | -- | 5.9 | 9 | .14 |
| SEP. | | | | | |
| 02... | 1930 | -- | 4.8 | 4 | .05 |
| 10... | 0720 | -- | 9.7 | 0 | .00 |
| 17... | 0845 | -- | 4.7 | 0 | .00 |
| 24... | 1000 | -- | 4.9 | 1 | .01 |
| 05400600 - LITTLE PLOVER RIVER NR. ARNOTT, WIS. (LAT 44 28 05 LONG 089 29 20) | | | | | |
| JUNE, 1973 | | | | | |
| 05... | 1345 | -- | 41 | 8 | .89 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| WISCONSIN RIVER BASIN--Continued | | | | | |
| 05400850 - LITTLE PLOVER RIVER AT PLOVER, WIS. (LAT 44 28 26 LONG 089 31 44) | | | | | |
| OCT., 1972 | | | | | |
| 16... | 1130 | 46.0 | 14 | 2 | .08 |
| NOV. | | | | | |
| 09... | 1130 | -- | 16 | 2 | .09 |
| DEC. | | | | | |
| 19... | 1055 | -- | 13 | 8 | .28 |
| JAN., 1973 | | | | | |
| 29... | 1230 | -- | 13 | 2 | .07 |
| MAR. | | | | | |
| 05... | 1140 | -- | 14 | 1 | .04 |
| APR. | | | | | |
| 11... | 1200 | -- | 28 | 10 | .54 |
| 16... | 1145 | -- | 52 | 13 | 1.8 |
| JUNE | | | | | |
| 05... | 1145 | -- | 55 | 20 | 3.0 |
| AUG. | | | | | |
| 10... | 1120 | 14.0 | 9.7 | 1 | .03 |
| 05401020 - TENMILE CREEK DITCH 5 NR. BANCROFT, WIS. (LAT 44 18 08 LONG 089 32 59 01) | | | | | |
| MAY , 1973 | | | | | |
| 10... | 1400 | 9.0 | 27 | 96 | 7.0 |
| JUNE | | | | | |
| 05... | 1450 | -- | 25 | 18 | 1.2 |
| 05401050 - TENMILE CREEK NR. NEKOOSA, WIS. (LAT 44 15 44 LONG 089 48 38) | | | | | |
| NOV., 1972 | | | | | |
| 10... | 1250 | -- | 106 | 10 | 2.9 |
| DEC. | | | | | |
| 20... | 1000 | -- | 71 | 8 | 1.5 |
| JAN., 1973 | | | | | |
| 30... | 1100 | -- | 71 | 3 | .58 |
| MAR. | | | | | |
| 05... | 1640 | -- | 99 | 9 | 2.4 |
| 13... | 0845 | -- | 316 | 35 | 30 |
| APR. | | | | | |
| 12... | 1230 | -- | 149 | 16 | 6.4 |
| JUNE | | | | | |
| 05... | 1440 | -- | 178 | 25 | 12 |
| JULY | | | | | |
| 19... | 1040 | 68.0 | 78 | 8 | 1.5 |
| AUG. | | | | | |
| 29... | 1030 | -- | 54 | 15 | 2.2 |
| 05401520 - BIG ROCHE A CRI CREEK NR. ADAMS, WIS. (LAT 44 05 52 LONG 089 46 30) | | | | | |
| OCT., 1972 | | | | | |
| 02... | 1645 | 11.0 | 167 | 8 | 3.6 |
| NOV. | | | | | |
| 19... | 1030 | -- | 93 | 5 | 1.3 |
| DEC. | | | | | |
| 19... | 1605 | -- | 69 | 10 | 1.9 |
| JAN., 1973 | | | | | |
| 30... | 1000 | -- | 68 | 2 | .37 |
| MAR. | | | | | |
| 05... | 1540 | -- | 89 | 6 | 1.4 |
| 13... | 1120 | -- | 281 | 15 | 11 |
| APR. | | | | | |
| 12... | 0810 | -- | 117 | 10 | 3.2 |
| JUNE | | | | | |
| 05... | 1030 | -- | 139 | 8 | 3.0 |
| JULY | | | | | |
| 18... | 1715 | -- | 50 | 10 | 1.6 |
| AUG. | | | | | |
| 29... | 1545 | -- | 51 | 2 | .28 |
| 05402000 - YELLOW RIVER NR. BABCOCK, WIS. (LAT 44 18 05 LONG 090 07 15) | | | | | |
| MAR., 1973 | | | | | |
| 08... | 1000 | -- | 6750 | 26 | 474 |
| JUNE | | | | | |
| 08... | 1315 | 21.0 | 181 | 11 | 5.4 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

WISCONSIN RIVER BASIN--Continued

05483500 - LEMONWEIR RIVER AT NEW LISBON, WIS. (LAT 43 52 47 LONG 090 09 48)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| OCT., 1972 | | | | | |
| 12... | 1355 | -- | 720 | 18 | 35 |
| 13... | 1700 | -- | 667 | 10 | 18 |
| 20... | 1700 | -- | 469 | 6 | 7.6 |
| 24... | 1700 | -- | 1070 | 14 | 40 |
| 25... | 1700 | -- | 1210 | 11 | 36 |
| 26... | 1700 | -- | 1300 | 8 | 38 |
| 27... | 1700 | -- | 1420 | 6 | 23 |
| 28... | 1700 | -- | 1300 | 6 | 21 |
| 29... | 1700 | -- | 811 | 6 | 18 |
| NOV. | | | | | |
| 03... | 1700 | -- | 1020 | 8 | 22 |
| 04... | 1700 | -- | 1060 | 8 | 23 |
| 05... | 1700 | -- | 1110 | 6 | 18 |
| 06... | 1700 | -- | 1110 | 4 | 12 |
| 07... | 1700 | -- | 1070 | 6 | 17 |
| 10... | 1700 | -- | 952 | 3 | 7.7 |
| 13... | 1120 | -- | 827 | 2 | 4.5 |
| 17... | 1630 | -- | 630 | 2 | 3.4 |
| 24... | 1630 | -- | 440 | 4 | 4.8 |
| DEC. | | | | | |
| 01... | 1630 | -- | 310 | 5 | 4.2 |
| 08... | 1630 | -- | 240 | 6 | 3.9 |
| 15... | 1630 | -- | 220 | 5 | 3.0 |
| 22... | 1600 | -- | 220 | 4 | 2.4 |
| 29... | 1600 | -- | 220 | 9 | 5.3 |
| 30... | 1600 | -- | 240 | 8 | 5.2 |
| 31... | 1600 | -- | 320 | 15 | 13 |
| JAN., 1973 | | | | | |
| 01... | 1600 | -- | 400 | 11 | 12 |
| 02... | 1600 | -- | 490 | 9 | 12 |
| 03... | 1600 | -- | 480 | 5 | 6.5 |
| 04... | 1600 | -- | 470 | 6 | 7.6 |
| 05... | 1600 | -- | 530 | 6 | 8.7 |
| 08... | 1600 | -- | 560 | 4 | 6.0 |
| FEB. | | | | | |
| 23... | 1630 | -- | 276 | 1 | .75 |
| MAR. | | | | | |
| 02... | 1630 | -- | 280 | 4 | 3.0 |
| 03... | 1630 | -- | 300 | 16 | 13 |
| 04... | 1630 | -- | 480 | 9 | 9.7 |
| 05... | 1630 | -- | 680 | 8 | 13 |
| 06... | 1630 | -- | 819 | 4 | 8.8 |
| 07... | 1630 | -- | 1560 | 20 | 84 |
| 08... | 1630 | -- | 2130 | 18 | 104 |
| 09... | 1230 | -- | 2340 | 22 | 139 |
| 09... | 1630 | -- | 2299 | 6 | 37 |
| 10... | 1630 | -- | 2270 | 6 | 37 |
| 11... | 1630 | -- | 2546 | 9 | 62 |
| 12... | 1630 | -- | 3064 | 26 | 215 |
| 13... | 1630 | -- | 3560 | 6 | 58 |
| 14... | 1630 | -- | 3950 | 6 | 64 |
| 15... | 1630 | -- | 3950 | 10 | 107 |
| 16... | 1630 | -- | 3700 | 4 | 41 |
| 17... | 1630 | -- | 3300 | 4 | 37 |
| 18... | 1630 | -- | 2890 | 4 | 31 |
| 19... | 1630 | -- | 2404 | 2 | 13 |
| 20... | 1630 | -- | 2020 | 2 | 11 |
| 21... | 1630 | -- | 1735 | 5 | 23 |
| 22... | 1630 | -- | 1485 | 6 | 24 |
| 23... | 1630 | -- | 1270 | 4 | 14 |
| 24... | 1630 | -- | 1060 | 8 | 23 |
| 25... | 1630 | -- | 910 | 8 | 20 |
| 26... | 1630 | -- | 814 | 7 | 15 |
| 27... | 1630 | -- | 550 | 6 | 8.9 |
| 28... | 1630 | -- | 687 | 6 | 11 |
| 29... | 1630 | -- | 646 | 6 | 10 |
| 30... | 1630 | -- | 447 | 4 | 4.8 |
| 31... | 1630 | -- | 592 | 11 | 10 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

WISCONSIN RIVER BASIN--Continued

05403500 - LEMONWEIR RIVER AT NEW LISBON, WIS. (LAT 43 52 47 LONG 090 09 40)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| APR., 1973 | | | | | |
| 01... | 1630 | -- | 652 | 8 | 14 |
| 02... | 1630 | -- | 898 | 12 | 29 |
| 03... | 1630 | -- | 931 | 8 | 20 |
| 04... | 1630 | -- | 1070 | 7 | 20 |
| 05... | 1025 | 5.5 | 963 | 7 | 18 |
| 05... | 1630 | -- | 961 | 5 | 13 |
| 06... | 1630 | -- | 1000 | 6 | 16 |
| 07... | 1630 | -- | 1030 | 9 | 25 |
| 08... | 1630 | -- | 925 | 4 | 10 |
| 09... | 1630 | -- | 886 | 5 | 12 |
| 10... | 1630 | -- | 808 | 4 | 8.7 |
| 11... | 1630 | -- | 794 | 4 | 8.6 |
| 12... | 1630 | -- | 907 | 4 | 9.8 |
| 13... | 1630 | -- | 1146 | 8 | 25 |
| 14... | 1630 | -- | 1545 | 8 | 33 |
| 15... | 1630 | -- | 2180 | 8 | 47 |
| 16... | 1630 | -- | 3710 | 28 | 280 |
| 17... | 1630 | -- | 5350 | 18 | 260 |
| 18... | 1505 | -- | 5020 | 16 | 217 |
| 18... | 1630 | -- | 4841 | 14 | 183 |
| 19... | 1630 | -- | 4230 | 10 | 114 |
| 24... | 1700 | -- | 2159 | 3 | 17 |
| 25... | 1700 | -- | 1725 | 6 | 28 |
| 26... | 1700 | -- | 1415 | 5 | 19 |
| 27... | 1700 | -- | 1150 | 5 | 16 |
| 28... | 1700 | -- | 937 | 6 | 15 |
| 29... | 1700 | -- | 847 | 6 | 14 |
| 30... | 1700 | -- | 850 | 12 | 28 |
| MAY | | | | | |
| 01... | 1700 | -- | 1290 | 18 | 63 |
| 02... | 1700 | -- | 1972 | 20 | 106 |
| 03... | 1700 | -- | 2834 | 12 | 92 |
| 10... | 1700 | -- | 2834 | 10 | 77 |
| 11... | 1700 | -- | 2397 | 6 | 39 |
| 12... | 1700 | -- | 1984 | 10 | 54 |
| 13... | 1700 | -- | 1635 | 8 | 35 |
| 14... | 1700 | -- | 1858 | 6 | 30 |
| 15... | 1700 | -- | 1146 | 6 | 19 |
| 16... | 1700 | -- | 997 | 6 | 16 |
| 17... | 1700 | -- | 734 | 5 | 9.9 |
| 18... | 1700 | -- | 732 | 7 | 14 |
| 19... | 1700 | -- | 691 | 7 | 13 |
| 20... | 1700 | -- | 660 | 7 | 12 |
| 21... | 1700 | -- | 630 | 7 | 12 |
| 22... | 1700 | -- | 644 | 8 | 14 |
| 23... | 1700 | -- | 640 | 8 | 14 |
| 24... | 1105 | -- | 644 | 12 | 21 |
| 24... | 1700 | -- | 640 | 10 | 17 |
| 25... | 1700 | -- | 847 | 14 | 32 |
| 26... | 1700 | -- | 1009 | 11 | 30 |
| 27... | 1700 | -- | 1274 | 8 | 28 |
| 28... | 1700 | -- | 1864 | 14 | 70 |
| 29... | 1700 | -- | 2467 | 15 | 100 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| WISCONSIN RIVER BASIN--Continued | | | | | |
| 05403500 - LEMONWEIR RIVER AT NEW LISBON, WIS. (LAT 43 52 47 LONG 090 09 40) | | | | | |
| MAY , 1973 | | | | | |
| 30... | 1700 | -- | 2750 | 3 | 22 |
| 31... | 1700 | -- | 2700 | 1 | 7.3 |
| JUNE | | | | | |
| 01... | 1700 | -- | 2360 | 2 | 13 |
| 02... | 1700 | -- | 1880 | 2 | 10 |
| 03... | 1700 | -- | 1570 | 2 | 8.5 |
| 04... | 1700 | -- | 1250 | 1 | 3.4 |
| 05... | 1700 | -- | 1140 | 18 | 55 |
| 06... | 1700 | -- | 1040 | 4 | 11 |
| 07... | 1700 | -- | 865 | 3 | 7.0 |
| 08... | 1700 | -- | 816 | 6 | 13 |
| 09... | 1700 | -- | 778 | 6 | 13 |
| 10... | 1700 | -- | 703 | 6 | 11 |
| 11... | 1700 | -- | 578 | 8 | 12 |
| 12... | 1700 | -- | 377 | 13 | 13 |
| 13... | 1700 | -- | 438 | 8 | 9.5 |
| 14... | 1700 | -- | 423 | 10 | 11 |
| 15... | 1700 | -- | 442 | 8 | 9.5 |
| 16... | 1700 | -- | 436 | 6 | 7.1 |
| 17... | 1700 | -- | 424 | 6 | 6.9 |
| 18... | 1700 | -- | 425 | 10 | 11 |
| 19... | 1700 | -- | 460 | 12 | 15 |
| 20... | 1700 | -- | 481 | 13 | 17 |
| 21... | 1700 | -- | 502 | 11 | 15 |
| 22... | 1700 | -- | 586 | 7 | 9.6 |
| 23... | 1700 | -- | 478 | 10 | 13 |
| 24... | 1700 | -- | 447 | 16 | 19 |
| 25... | 1700 | -- | 409 | 24 | 27 |
| 26... | 1700 | -- | 385 | 14 | 15 |
| 27... | 1700 | -- | 364 | 20 | 20 |
| 28... | 1700 | -- | 256 | 9 | 6.2 |
| 29... | 1700 | -- | 355 | 26 | 25 |
| 30... | 1700 | -- | 347 | 48 | 45 |
| JULY | | | | | |
| 06... | 1700 | -- | 301 | 32 | 26 |
| 11... | 1355 | -- | 163 | 9 | 4.0 |
| 13... | 1700 | -- | 177 | 40 | 19 |
| 20... | 1700 | -- | 130 | 25 | 8.8 |
| 27... | 1700 | -- | 117 | 20 | 6.3 |
| AUG. | | | | | |
| 03... | 1700 | -- | 112 | 10 | 3.0 |
| 10... | 1700 | -- | 403 | 12 | 13 |
| 17... | 1700 | -- | 151 | 14 | 5.7 |
| 24... | 1700 | -- | 461 | 20 | 25 |
| 31... | 1700 | -- | 189 | 16 | 8.2 |
| SEP. | | | | | |
| 05... | 1530 | -- | 230 | 10 | 6.2 |
| 07... | 1700 | -- | 211 | 22 | 13 |
| 14... | 1700 | -- | 147 | 15 | 6.0 |
| 21... | 1700 | -- | 207 | 10 | 5.6 |
| 28... | 1700 | -- | 382 | 5 | 5.2 |
| 05403630 - HULBERT CREEK NR. WISCONSIN DELLS, WIS. (LAT 43 37 37 LONG 089 49 36) | | | | | |
| NOV., 1972 | | | | | |
| 16... | 1350 | 2.2 | 5.2 | 6 | .08 |
| JAN., 1973 | | | | | |
| 09... | 0950 | -- | 4.0 | 8 | .09 |
| FEB. | | | | | |
| 02... | 1300 | .5 | 19 | 22 | 1.2 |
| APR. | | | | | |
| 05... | 1800 | 9.5 | 9.4 | 9 | .23 |
| JUNE | | | | | |
| 01... | 1110 | 16.0 | 10 | 34 | .96 |
| JULY | | | | | |
| 12... | 1030 | 19.0 | 4.5 | 12 | .15 |
| 05404000 - WISCONSIN RIVER NR. WISCONSIN DELLS, WIS. (LAT 43 36 22 LONG 089 45 25) | | | | | |
| MAR., 1973 | | | | | |
| 12... | 1730 | -- | 45100 | 18 | 2190 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

WISCONSIN RIVER BASIN--Continued

05404168 - BARABOO RIVER NR. REEDSBURG, WIS. (LAT 43 30 43 LONG 089 54 48)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| APR., 1973 | | | | | |
| 17... | 1715 | 9.0 | 4120 | 81 | 901 |

05409830 - N. FK. NEDERLO CREEK NR. GAYS MILLS, WIS. (LAT 43 21 47 LONG 090 54 34 01)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| MAR., 1973 | | | | | |
| 06... | 1755 | -- | 2.7 | 2290 | 17 |
| APR. | | | | | |
| 16... | 1100 | -- | 3.2 | 141 | 1.2 |
| SEP. | | | | | |
| 25... | 0915 | -- | 1.3 | 117 | .41 |

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .002 MM | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. SIEVE DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|---|---|---|---|---|
| MAR. 06... | 1755 | 2.7 | 2290 | 17 | 51 | 67 | 82 | 94 | 99 | 100 |

05409860 - S. FK. NEDERLO CREEK NR. GAYS MILLS, WIS. (LAT 43 21 36 LONG 090 54 31 01)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| MAR., 1973 | | | | | |
| 06... | 1815 | -- | 4.6 | 187 | 2.3 |
| APR. | | | | | |
| 16... | 1130 | -- | 13 | 304 | 11 |
| SEP. | | | | | |
| 25... | 0940 | -- | 1.6 | 28 | .12 |

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .002 MM | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM |
|---|---|---|---|---|---|---|---|---|---|
| MAR. 06... | 1815 | 4.6 | 187 | 2.3 | 40 | 50 | 58 | 72 | 100 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

WISCONSIN RIVER BASIN--Continued

05409870 - NEDERLO CREEK NR. GAYS MILLS, WIS. (LAT 43 21 30 LONG 090 53 49 01)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| OCT., 1972 | | | | | |
| 22... | 1745 | -- | 5.7 | 50 | .77 |
| 22... | 1910 | -- | 6.7 | 111 | 2.0 |
| 22... | 2010 | -- | 7.0 | 124 | 2.3 |
| 22... | 2110 | -- | 7.0 | 194 | 3.7 |
| 22... | 2210 | -- | 8.2 | 114 | 2.5 |
| 22... | 2310 | -- | 10 | 115 | 3.3 |
| 23... | 0010 | -- | 9.7 | 126 | 3.3 |
| 23... | 0110 | -- | 8.9 | 170 | 4.1 |
| 23... | 0210 | -- | 7.6 | 101 | 2.1 |
| 23... | 0310 | -- | 7.0 | 76 | 1.4 |
| 23... | 0410 | -- | 6.4 | 63 | 1.1 |
| 23... | 0510 | -- | 5.7 | 52 | .80 |
| JAN., 1973 | | | | | |
| 17... | 1030 | -- | 2.1 | 4 | .02 |
| MAR. | | | | | |
| 06... | 1725 | -- | 8.6 | 526 | 12 |
| 06... | 1755 | -- | 8.9 | 262 | 6.3 |
| 06... | 1825 | -- | 9.3 | 268 | 6.7 |
| 06... | 1845 | -- | 8.9 | 382 | 9.2 |
| 06... | 1855 | -- | 9.7 | 803 | 21 |
| 06... | 1925 | -- | 10 | 821 | 22 |
| 06... | 1955 | -- | 10 | 698 | 19 |
| 06... | 2025 | -- | 8.9 | 392 | 9.4 |
| 06... | 2110 | -- | 9.3 | 330 | 8.3 |
| 06... | 2125 | -- | 9.3 | 296 | 7.4 |
| 06... | 2225 | -- | 8.9 | 208 | 5.0 |
| 06... | 2255 | -- | 8.2 | 170 | 3.8 |
| 06... | 2325 | -- | 7.6 | 170 | 3.5 |
| 06... | 2355 | -- | 7.6 | 272 | 5.6 |
| 07... | 0025 | -- | 8.0 | 384 | 8.3 |
| 07... | 0055 | -- | 8.9 | 303 | 7.3 |
| 07... | 0125 | -- | 12 | 305 | 9.9 |
| 07... | 0155 | -- | 13 | 367 | 13 |
| 07... | 0225 | -- | 16 | 491 | 21 |
| 07... | 0255 | -- | 18 | 668 | 32 |
| 07... | 0325 | -- | 19 | 637 | 33 |
| 07... | 0445 | -- | 15 | 337 | 14 |
| 07... | 0455 | -- | 15 | 357 | 14 |
| 07... | 0555 | -- | 11 | 219 | 6.5 |
| 07... | 0625 | -- | 9.3 | 198 | 5.0 |
| 07... | 0655 | -- | 8.2 | 161 | 3.6 |
| 07... | 0725 | -- | 7.3 | 136 | 2.7 |
| 10... | 1725 | -- | 8.2 | 241 | 5.3 |
| 10... | 1745 | -- | 9.7 | 260 | 6.8 |
| 10... | 1815 | -- | 12 | 331 | 11 |
| 10... | 1845 | -- | 14 | 776 | 29 |
| 10... | 1915 | -- | 14 | 1200 | 45 |
| 10... | 1945 | -- | 13 | 827 | 29 |
| 10... | 2015 | -- | 13 | 947 | 33 |
| 10... | 2045 | -- | 11 | 768 | 23 |
| 10... | 2115 | -- | 10 | 605 | 16 |
| 10... | 2145 | -- | 9.7 | 494 | 13 |
| 10... | 2245 | -- | 13 | 355 | 9.6 |
| 10... | 2315 | -- | 15 | 391 | 16 |
| 10... | 2345 | -- | 15 | 395 | 16 |
| 11... | 0015 | -- | 15 | 582 | 24 |
| 11... | 0045 | -- | 14 | 650 | 25 |
| 11... | 0145 | -- | 11 | 417 | 14 |
| 14... | 0115 | -- | 7.6 | 1440 | 30 |
| 14... | 0145 | -- | 14 | 781 | 30 |
| 14... | 0215 | -- | 18 | 652 | 32 |
| 14... | 0245 | -- | 20 | 2010 | 152 |
| 14... | 0315 | -- | 19 | 2040 | 105 |
| 14... | 0345 | -- | 16 | 1650 | 71 |
| 14... | 0415 | -- | 13 | 1510 | 53 |
| 14... | 0445 | -- | 10 | 1050 | 28 |
| 14... | 0515 | -- | 8.6 | 765 | 18 |
| 14... | 0545 | -- | 9.7 | 911 | 24 |
| 14... | 0615 | -- | 9.3 | 459 | 12 |
| 14... | 0645 | -- | 8.2 | 378 | 8.4 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

WISCONSIN RIVER BASIN--Continued

05409870 - NEDERLO CREEK NR. GAYS MILLS, WIS. (LAT 43 21 30 LONG 090 53 49 01)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| APR., 1973 | | | | | |
| 15... | 1255 | -- | 8.9 | 114 | 2.7 |
| 15... | 2330 | -- | 7.6 | 113 | 2.3 |
| 15... | 2345 | -- | 7.6 | 102 | 2.1 |
| 16... | 0045 | -- | 7.6 | 120 | 2.5 |
| 16... | 0115 | -- | 8.0 | 155 | 3.3 |
| 16... | 0215 | -- | 9.7 | 165 | 4.3 |
| 16... | 0245 | -- | 9.7 | 173 | 4.5 |
| 16... | 0315 | -- | 12 | 177 | 5.7 |
| 16... | 0345 | -- | 12 | 168 | 5.4 |
| 16... | 0415 | -- | 14 | 233 | 8.8 |
| 16... | 0445 | -- | 15 | 316 | 13 |
| 16... | 0515 | -- | 17 | 485 | 22 |
| 16... | 0545 | -- | 20 | 650 | 35 |
| 16... | 0615 | -- | 23 | 601 | 37 |
| 16... | 0645 | -- | 24 | 547 | 35 |
| 16... | 0715 | -- | 31 | 985 | 82 |
| 16... | 0745 | -- | 36 | 1100 | 107 |
| 16... | 0815 | -- | 36 | 1130 | 110 |
| 16... | 0845 | -- | 37 | 1060 | 106 |
| 16... | 0915 | -- | 38 | 1080 | 111 |
| 16... | 0945 | -- | 35 | 904 | 85 |
| 16... | 1015 | -- | 29 | 794 | 62 |
| 16... | 1115 | -- | 20 | 442 | 24 |
| 16... | 1145 | -- | 17 | 384 | 18 |
| 16... | 1210 | -- | 15 | 268 | 11 |
| 16... | 1215 | -- | 14 | 275 | 10 |
| 16... | 1245 | -- | 13 | 216 | 7.6 |
| 16... | 1315 | -- | 11 | 342 | 10 |
| 16... | 1345 | -- | 10 | 151 | 4.1 |
| 16... | 1415 | -- | 8.9 | 130 | 3.1 |
| 16... | 1445 | -- | 8.2 | 115 | 2.5 |
| 16... | 1515 | -- | 8.0 | 132 | 2.9 |
| 16... | 1545 | -- | 7.3 | 88 | 1.7 |
| MAY | | | | | |
| 02... | 0445 | -- | 8.0 | 145 | 3.1 |
| 02... | 0535 | -- | 11 | 208 | 6.2 |
| 02... | 0605 | -- | 10 | 185 | 5.0 |
| 02... | 1325 | -- | 3.2 | 35 | .30 |
| 07... | 0220 | -- | 8.0 | 671 | 14 |
| 07... | 0240 | -- | 8.9 | 636 | 15 |
| 07... | 0310 | -- | 12 | 489 | 16 |
| 07... | 0340 | -- | 18 | 559 | 27 |
| 07... | 0410 | -- | 18 | 660 | 32 |
| 07... | 0440 | -- | 16 | 1050 | 45 |
| 07... | 0510 | -- | 19 | 741 | 38 |
| 07... | 0540 | -- | 17 | 638 | 29 |
| 07... | 0610 | -- | 14 | 666 | 25 |
| 07... | 0640 | -- | 11 | 537 | 16 |
| 07... | 0710 | -- | 10 | 392 | 11 |
| 07... | 0740 | -- | 8.9 | 300 | 7.2 |
| 07... | 0810 | -- | 8.2 | 230 | 5.1 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

WISCONSIN RIVER BASIN--Continued

05409870 - NEDERLO CREEK NR. GAYS MILLS, WIS. (LAT 43 21 30 LONG 090 53 49 01)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| MAY , 1973 | | | | | |
| 07... | 0840 | -- | 8.0 | 175 | 3.8 |
| 07... | 1145 | -- | 8.0 | 79 | 1.7 |
| 07... | 1215 | -- | 8.6 | 77 | 1.8 |
| 07... | 1245 | -- | 9.7 | 76 | 2.0 |
| 07... | 1315 | -- | 11 | 89 | 2.6 |
| 07... | 1345 | -- | 13 | 109 | 3.8 |
| 07... | 1415 | -- | 15 | 112 | 4.5 |
| 07... | 1515 | -- | 16 | 164 | 7.1 |
| 07... | 1545 | -- | 15 | 193 | 7.8 |
| 07... | 1615 | -- | 15 | 182 | 7.4 |
| 07... | 1645 | -- | 16 | 156 | 6.7 |
| 07... | 1815 | -- | 13 | 117 | 4.1 |
| 07... | 1845 | -- | 11 | 100 | 3.0 |
| 07... | 1915 | -- | 10 | 81 | 2.2 |
| 07... | 2015 | -- | 8.9 | 73 | 1.8 |
| 07... | 2045 | -- | 8.6 | 68 | 1.6 |
| 07... | 2115 | -- | 8.0 | 63 | 1.4 |
| 07... | 2145 | -- | 7.6 | 57 | 1.2 |
| 07... | 2215 | -- | 7.3 | 51 | 1.0 |
| JUNE | | | | | |
| 22... | 2200 | -- | 13 | 3594 | 126 |
| AUG. | | | | | |
| 08... | 1215 | 14.5 | 7.0 | 89 | 1.7 |
| 08... | 1240 | 14.5 | 10 | 132 | 3.6 |
| SEP. | | | | | |
| 29... | 1645 | -- | 7.7 | 55 | 1.1 |

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .002 MM | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM |
|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | |
| 23... | 1130 | 7.3 | 112 | 2.2 | 62 | 71 | 78 |
| MAR. | | | | | | | |
| 06... | 2110 | 9.3 | 330 | 8.3 | 51 | 60 | 69 |
| 07... | 0455 | 15 | 357 | 14 | 55 | 69 | 77 |
| 11... | 0145 | 11 | 417 | 14 | 52 | 69 | 81 |
| APR. | | | | | | | |
| 16... | 0745 | 36 | 1100 | 107 | 25 | 34 | 45 |

| DATE | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. SIEVE DIAM. % FINER THAN .062 MM | SUS. SED. SIEVE DIAM. % FINER THAN .125 MM | SUS. SED. SIEVE DIAM. % FINER THAN .250 MM | SUS. SED. SIEVE DIAM. % FINER THAN .500 MM |
|---|---|---|---|---|---|---|
| OCT. | | | | | | |
| 23... | 85 | 92 | 95 | 97 | 98 | 100 |
| MAR. | | | | | | |
| 06... | 75 | 83 | 91 | 95 | 98 | 100 |
| 07... | 86 | 93 | 96 | 97 | 98 | 100 |
| 11... | 90 | 96 | 97 | 98 | 99 | 100 |
| APR. | | | | | | |
| 16... | 57 | 78 | 87 | 91 | 94 | 100 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

WISCONSIN RIVER BASIN--Continued

05409090 - NEDERLO CREEK NR. GAYS MILLS, WIS. (LAT 43 21 43 LONG 090 52 44)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| JAN., 1973 | | | | | |
| 17... | 1000 | -- | 5.8 | 40 | .63 |
| MAY | | | | | |
| 02... | 1230 | -- | 18 | 67 | 3.3 |
| AUG. | | | | | |
| 08... | 1310 | -- | 20 | 315 | 17 |
| 08... | 1340 | -- | 18 | 482 | 20 |
| 08... | 1410 | -- | 11 | 446 | 13 |
| 08... | 1440 | -- | 8.0 | 460 | 9.9 |
| SEP. | | | | | |
| 25... | 0855 | -- | 4.1 | 134 | 1.5 |
| 25... | 0955 | -- | 4.1 | 132 | 1.5 |
| 25... | 1040 | -- | 7.3 | 120 | 2.5 |

05410000 - KICKAPOO RIVER AT GAYS MILLS, WIS. (LAT 43 19 18 LONG 090 51 08)

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | TEMPERATURE (DEG C) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| MAR., 1973 | | | | | |
| 05... | 1155 | -- | 691 | 970 | 1810 |
| 12... | 1145 | -- | 1514 | 329 | 1350 |
| APR. | | | | | |
| 16... | 1550 | -- | 1000 | 422 | 2850 |
| MAY | | | | | |
| 02... | 1500 | -- | 1362 | 166 | 610 |
| 23... | 1210 | -- | 792 | 51 | 109 |
| 28... | 1355 | -- | 1110 | 168 | 507 |
| JUNE | | | | | |
| 27... | 1210 | 19.0 | 628 | 132 | 224 |
| AUG. | | | | | |
| 27... | 1355 | 17.5 | 545 | 95 | 140 |
| SEP. | | | | | |
| 25... | 1200 | -- | 682 | 111 | 188 |

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .002 MM | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. SIEVE DIAM. % FINER THAN .062 MM | SUS. SED. SIEVE DIAM. % FINER THAN .125 MM | SUS. SED. SIEVE DIAM. % FINER THAN .250 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | | | |
| 02... | 1500 | 1362 | 160 | 588 | 34 | 39 | 47 | 58 | 77 | 92 | 98 | 100 |

05410500 - KICKAPOO RIVER AT STEUBEN, WIS. (LAT 43 11 27 LONG 090 52 28)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| JAN., 1973 | | | | | |
| 24... | 1330 | .5 | 548 | 30 | 44 |
| MAR. | | | | | |
| 05... | 1555 | -- | 509 | 114 | 157 |
| MAY | | | | | |
| 23... | 1700 | -- | 901 | 90 | 219 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

GRANT RIVER BASIN

05413500 - GRANT RIVER AT BURTON, WIS. (LAT 42 43 13 LONG 090 49 09)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| OCT., 1972 | | | | | |
| 31... | 1310 | -- | 221 | 62 | 37 |
| JAN., 1973 | | | | | |
| 24... | 1650 | -- | 192 | 492 | 255 |
| MAR. | | | | | |
| 07... | 0730 | -- | 2400 | 9570 | 62000 |
| 07... | 1445 | -- | 1500 | 5190 | 22100 |
| APR. | | | | | |
| 16... | 1500 | -- | 2340 | 4670 | 29500 |
| 16... | 1605 | -- | 2060 | 4160 | 2310[a] |
| MAY | | | | | |
| 22... | 1230 | -- | 389 | 98 | 103 |
| JUNE | | | | | |
| 20... | 1115 | 16.5 | 362 | 207 | 202 |
| AUG. | | | | | |
| 29... | 1110 | 22.0 | 245 | 164 | 110 |

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | BED MAT. SIEVE DIAM. % FINER THAN .062 MM | BED MAT. SIEVE DIAM. % FINER THAN .250 MM | BED MAT. SIEVE DIAM. % FINER THAN .500 MM | BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM |
|---|---|---|---|---|---|---|---|---|
| MAR. | | | | | | | | |
| 07... | 1446 | 6.5 | 1530 | 1 | 11 | 92 | 99 | 100 |

PLATTE RIVER BASIN

05414000 - PLATTE RIVER NR. ROCKVILLE, WIS. (LAT 42 43 55 LONG 090 38 25)

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .002 MM | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM |
|---|---|---|---|---|---|---|---|
| MAR., 1973 | | | | | | | |
| 07... | 0800 | 1910 | -- | 1910 | 4700 | 24700 | |
| MAR. | | | | | | | |
| 07... | 1000 | 1910 | 4830 | 24900 | 24 | 31 | 39 |

| DATE | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. SIEVE DIAM. % FINER THAN .062 MM | SUS. SED. SIEVE DIAM. % FINER THAN .125 MM | SUS. SED. SIEVE DIAM. % FINER THAN .250 MM | SUS. SED. SIEVE DIAM. % FINER THAN .500 MM |
|---|---|---|---|---|---|---|
| MAR. | | | | | | |
| 07... | 51 | 70 | 95 | 97 | 98 | 100 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

ROCK RIVER BASIN

05426000 - CRAWFISH RIVER AT MILFORD, WIS. (LAT 43 06 08 LONG 088 51 00)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| MAR., 1973 | | | | | |
| 02... | 1230 | -- | 619 | 4 | 6.7 |
| MAY | | | | | |
| 18... | 1010 | -- | 2050 | 70 | 387 |
| AUG. | | | | | |
| 20... | 0840 | 21.0 | 127 | 83 | 28 |

05427970 WILLOW CREEK AT MADISON, WIS. (LAT 43 04 27 LONG 089 25 21)

| DATE | TIME | SUSPENDED SEDIMENT (MG/L) | SUS. SED. FALL DIAM. % FINER THAN .002 MM | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. SIEVE DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|---|---|---|
| JAN. | | | | | | | | |
| 17... | 1140 | 114 | 63 | 82 | 93 | 98 | 99 | 100 |

05430500 - ROCK RIVER AT AFTON, WIS. (LAT 42 36 33 LONG 089 04 14)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| MAR., 1973 | | | | | |
| 19... | 1155 | -- | 8190 | 64 | 1420 |
| APR. | | | | | |
| 23... | 1445 | -- | 7660 | 80 | 1660 |
| MAY | | | | | |
| 07... | 1700 | 14.0 | 9840 | 42 | 1120 |

05431500 - TURTLE CREEK NR. CLINTON, WIS. (LAT 42 35 47 LONG 088 51 50)

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| MAR., 1973 | | | | | |
| 07... | 1505 | -- | 1700 | 434 | 1990 |
| APR. | | | | | |
| 21... | 1040 | -- | 9800 | 2430 | 64300 |
| 21... | 1145 | -- | 11020 | 2380 | 70800 |
| 21... | 2020 | -- | N.04 | 1745 | 115000 |
| 25... | 1335 | -- | 837 | 64 | 145 |
| MAY | | | | | |
| 02... | 1110 | -- | 2020 | 96 | 524 |
| 02... | 1255 | -- | 2810 | 300 | 2280 |
| 10... | 1100 | 14.0 | 462 | 48 | 60 |

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .002 MM | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM |
|---|---|---|---|---|---|---|---|
| APR. | | | | | | | |
| 21... | 1145 | 11020 | 2380 | 70800 | 50 | 62 | 72 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

ROCK RIVER BASIN--Continued

05431500 TURTLE CREEK NR CLINTON, WIS.--Continued

| DATE | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. SIEVE DIAM. % FINER THAN .062 MM | SUS. SED. SIEVE DIAM. % FINER THAN .125 MM | SUS. SED. SIEVE DIAM. % FINER THAN .250 MM | SUS. SED. SIEVE DIAM. % FINER THAN .500 MM | SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM |
|---|---|---|---|---|---|---|---|
| APR. | | | | | | | |
| 21... | 78 | 83 | 85 | 88 | 95 | 98 | 100 |

| DATE | TIME | TEMPER-ATURE (DEG C) | INSTAN-TANEOUS DIS-CHARGE (CFS) | SUS-PENDED SEDI-MENT (MG/L) | SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY) |
|---|---|---|---|---|---|
| 05432500 - PECATONICA RIVER AT DARLINGTON, WIS. (LAT 42 40 40 LONG 090 07 07) | | | | | |
| JAN., 1973 | | | | | |
| 25... | 1300 | -- | 287 | 73 | 57 |
| MAR. | | | | | |
| 06... | 1430 | -- | 226 | 62 | 38 |
| 07... | 1115 | -- | 1582 | 3250 | 13900 |
| 07... | 1220 | -- | 1620 | 2170 | 9490 |
| 07... | 1320 | 6.0 | 1620 | 1790 | 7830 |
| MAY | | | | | |
| 23... | 1700 | -- | 465 | 86 | 108 |
| AUG. | | | | | |
| 23... | 1035 | 17.5 | 205 | 155 | 86 |

| DATE | TIME | TEMPER-ATURE (DEG C) | INSTAN-TANEOUS DIS-CHARGE (CFS) | SUS-PENDED SEDI-MENT (MG/L) | SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .002 MM | SUS. SED. FALL DIAM. % FINER THAN .004 MM |
|---|---|---|---|---|---|---|---|
| MAR. | | | | | | | |
| 07... | 1115 | -- | 1620 | 2570 | 11200 | 34 | 44 |
| 07... | 1320 | 6.0 | 1620 | 1790 | 7830 | 16 | 20 |

| DATE | SUS. SED. FALL DIAM. % FINER THAN .008 MM | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. SIEVE DIAM. % FINER THAN .062 MM | SUS. SED. SIEVE DIAM. % FINER THAN .125 MM | SUS. SED. SIEVE DIAM. % FINER THAN .250 MM |
|---|---|---|---|---|---|---|
| MAR. | | | | | | |
| 07... | 56 | 71 | 90 | 97 | 99 | 100 |
| 07... | 25 | 36 | 77 | -- | -- | -- |

| DATE | TIME | TEMPER-ATURE (DEG C) | INSTAN-TANEOUS DIS-CHARGE (CFS) | BED MAT. SIEVE DIAM. % FINER THAN .062 MM | BED MAT. SIEVE DIAM. % FINER THAN .250 MM | BED MAT. SIEVE DIAM. % FINER THAN .500 MM | BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM | BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAR. | | | | | | | | | | | | |
| 07... | 1320 | 6.0 | 1620 | 40 | 58 | 70 | 75 | 78 | 82 | 88 | 95 | 100 |

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | TEMPERATURE (DEG C) | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|
| ROCK RIVER BASIN--Continued | | | | | |
| 05434500 - PECATONICA RIVER AT MARTINTOWN, WIS. (LAT 42 38 35 LONG 089 48 08) | | | | | |
| MAY , 1973 | | | | | |
| 09... | 1145 | -- | 4450 | 54 | 649 |
| 23... | 0930 | -- | 2080 | 94 | 528 |
| 05436500 - SUGAR RIVER NR. BROOHEAD, WIS. (LAT 42 36 48 LONG 089 23 50) | | | | | |
| MAR., 1973 | | | | | |
| 07... | 1710 | -- | 2340 | 220 | 1390 |
| 08... | 1010 | -- | 3740 | 162 | 1640 |
| MAY | | | | | |
| 02... | 1515 | -- | 2960 | 113 | 903 |
| 02... | 1715 | -- | 2960 | 149 | 1190 |
| ILLINOIS RIVER BASIN | | | | | |
| 05543830 - FOX RIVER AT WAUKESHA, WIS. (LAT 43 00 17 LONG 088 14 37) | | | | | |
| MAR., 1973 | | | | | |
| 21... | 1010 | -- | 208 | 2 | 1.1 |
| APR. | | | | | |
| 21... | 1000 | -- | 1640 | 198 | 877 |
| 22... | 1610 | -- | 2240 | 144 | 871 |
| 25... | 1700 | -- | 609 | 20 | 33 |
| JUNE | | | | | |
| 01... | 1130 | -- | 290 | 10 | 7.8 |
| JULY | | | | | |
| 12... | 1130 | 22.0 | 52 | 20 | 2.9 |
| AUG. | | | | | |
| 21... | 1235 | 23.0 | 14 | 24 | .94 |
| 05544200 - MUKWONAGO RIVER AT MUKWONAGO, WIS. (LAT 42 51 24 LONG 088 19 39) | | | | | |
| APR., 1973 | | | | | |
| 21... | 1615 | -- | 335 | 33 | 30 |
| 05545300 - WHITE RIVER NR. BURLINGTON, WIS. (LAT 42 39 57 LONG 088 19 03) | | | | | |
| APR., 1973 | | | | | |
| 21... | 1550 | -- | 1460 | 558 | 2200 |
| 05545334 - FOX RIVER AT BURLINGTON, WISCONSIN (LAT 42 40 46 LONG 088 16 18) | | | | | |
| APR., 1973 | | | | | |
| 21... | 1350 | -- | 4680 | 168 | 2120 |
| 05546500 - FOX RIVER AT WILMOT, WIS. (LAT 42 38 40 LONG 088 10 45) | | | | | |
| APR., 1973 | | | | | |
| 23... | 0850 | -- | 5980 | 198 | 3200 |

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